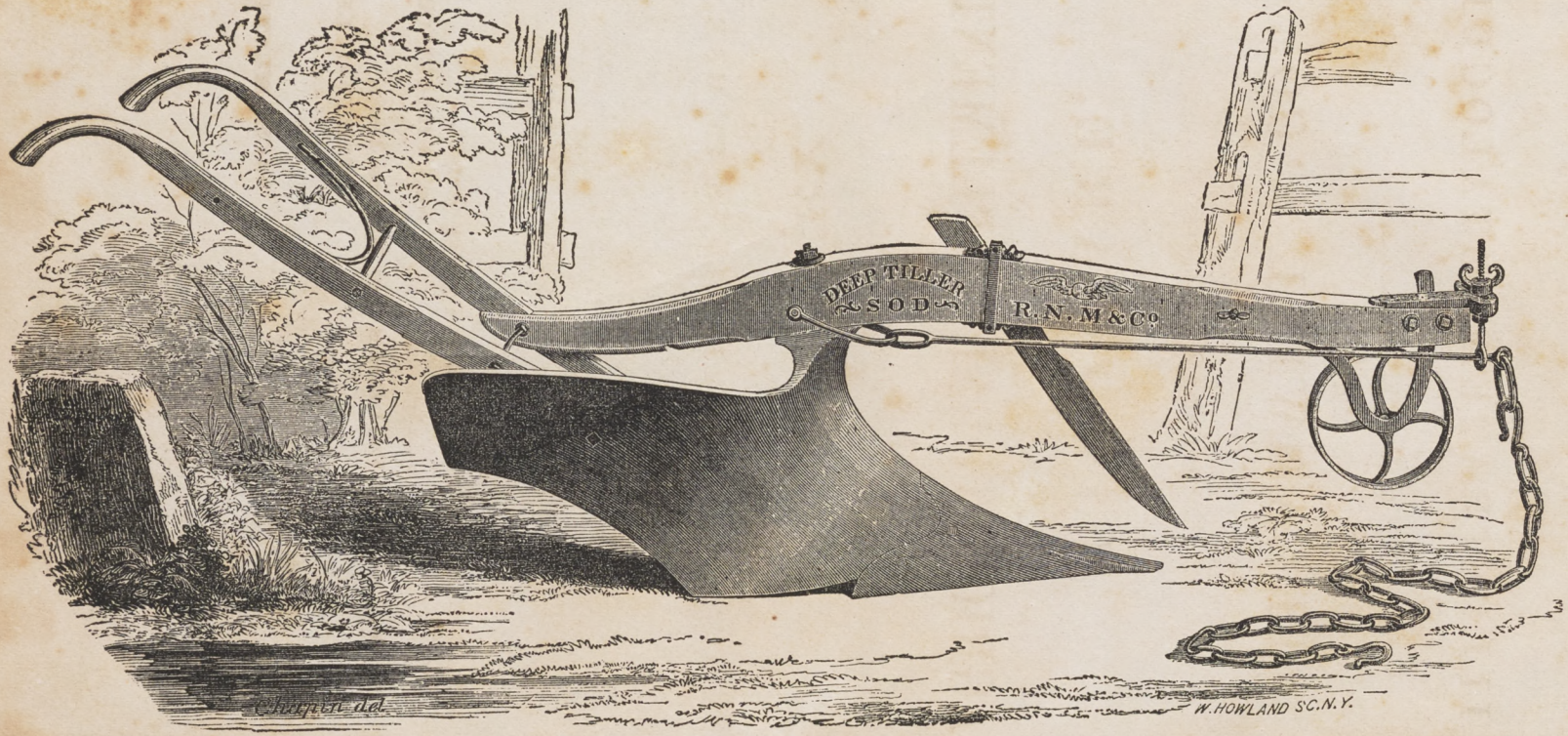
TREADWELL & CO.


DEEP TILLER
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R. N. M & Co
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ILLUSTRATED CATALOGUE.

TREADWELL & CO.,

IMPORTERS OF

HARDWARE,

AGRICULTURAL IMPLEMENTS,

AND

MACHINERY,

OF ALL DESCRIPTIONS IN USE,

AND ADAPTED TO

THE PACIFIC COAST TRADE,

N. E. Corner California and Battery Streets,
SAN FRANCISCO.

N. W. Corner of First Street and Maiden Lane,
MARYSVILLE.

And 56 and 58 J. Street,
SACRAMENTO.

NOTICE.

The undersigned having been established in the Hardware and Agricultural business since August, 1849, and having been liberally patronized by the California public, beg to make acknowledgments therefor, and to assure their friends and the public that no efforts will be relaxed to keep, as heretofore, an extensive stock of the latest and best make of goods in their department of trade.

TREADWELL & CO.

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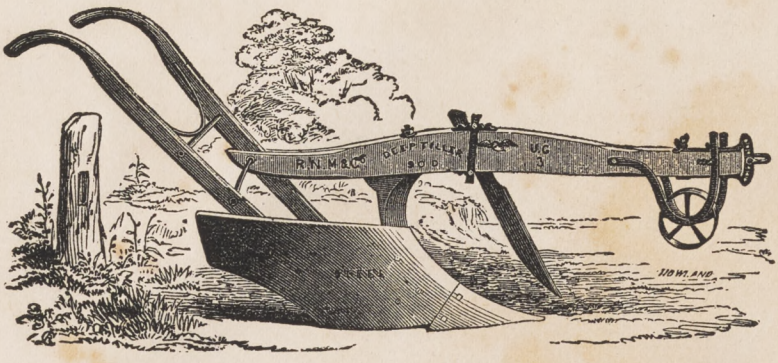

N. E. corner of California and Battery Streets,

SAN FRANCISCO.

Established in August, 1849.

HARDWARE,

AGRICULTURAL, MINING,

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WITH A COMPLETE ASSORTMENT OF

SHELF HARDWARE, CUTLERY, &c.

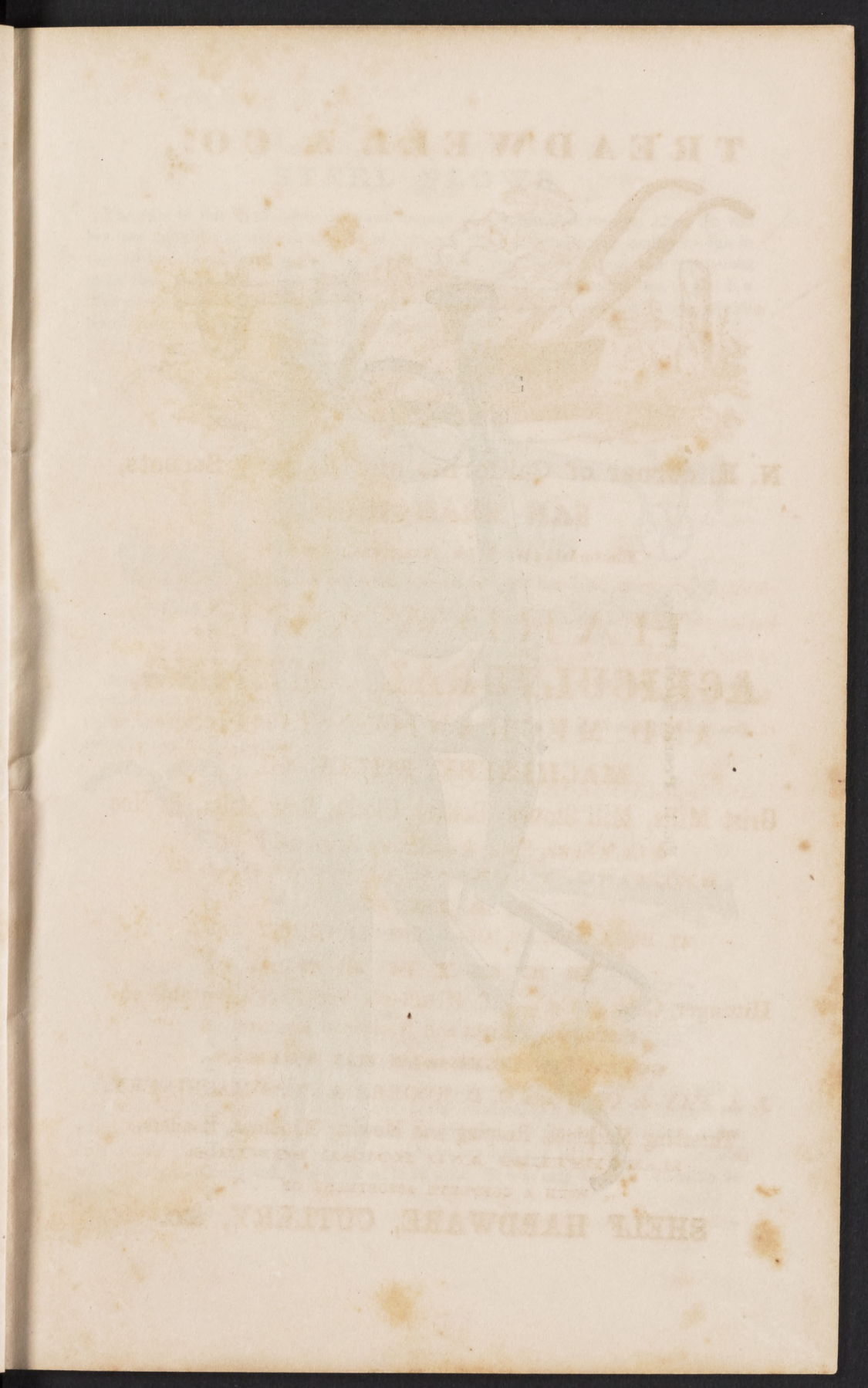
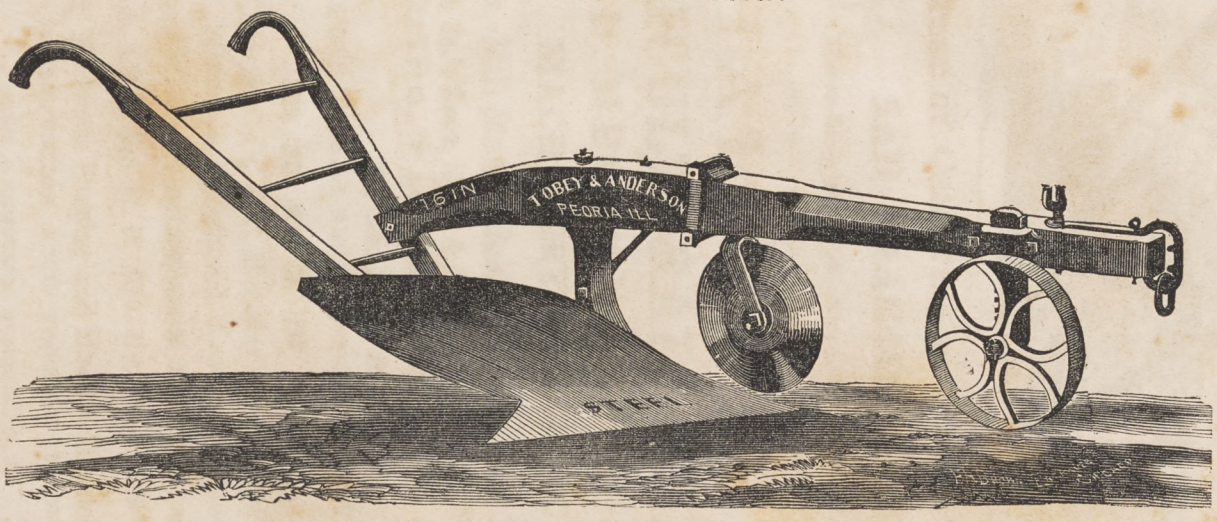


FIG. 1. **Peoria Steel Plow.**



We have recently made arrangements with Messrs. TOBY, ANDERSON & Co., the manufacturers of the justly celebrated Western or Peoria Plows, by which we hope to keep the market supplied, and for which we solicit the trade.

STEEL PLOWS.

The soils of this State being composed largely of vegetable substances, after the sod has been once broken and subdued, do not present friction or scouring quality enough to the cast iron mould-board to give it a suitable polish. Steel being a finer and less porous metal than cast iron, and less affected by rust, and requiring much less friction to give it a high polish, is considered the more desirable material for the construction of the mould-board, share and landside of plows for working such soils.

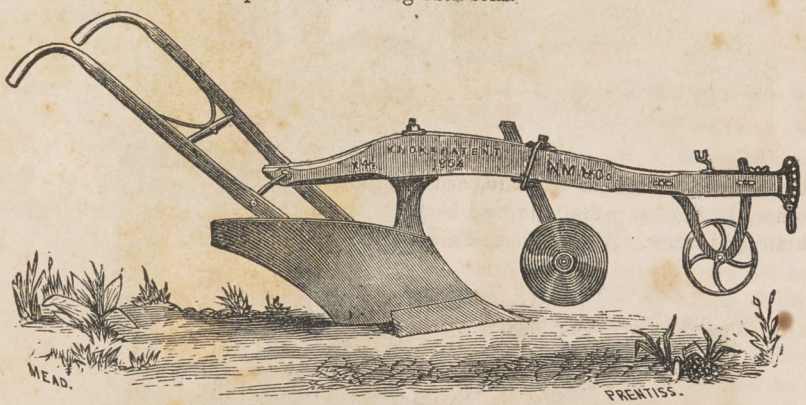


FIG. 2. **Steel Plow No. X 4½.**

Steel Plow No. X 4½, is trimmed with the Circular Cutter, for breaking. It is also trimmed with the straight knife cutter, where that arrangement is preferred. Remove the Cutter, and the plow is well adapted to old ground work. It is a light two-horse plow, and generally used in this State.

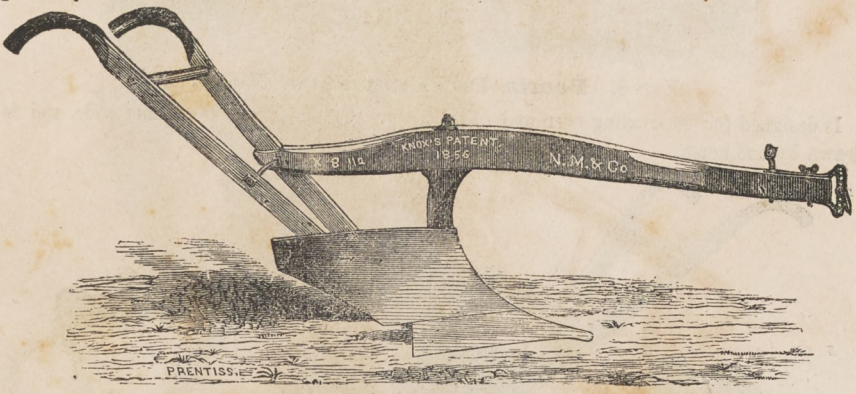


FIG. 3. **Steel Plow No. X 8½.**

Steel Plow No. X 8½ is rigged as a swing plow, as represented by the cut, or with a coulter, as may be desired. It is extra high in the standard, as it is specially designed for prairie or old land plowing. It has a short mould-board, is a thorough pulverizer, and a deep worker, carrying furrow-slices from 5 to 10 inches deep and 12 to 14 inches wide, and will brightly polish and work free and clear in all soils. It is of easy draft for two cattle or horses.

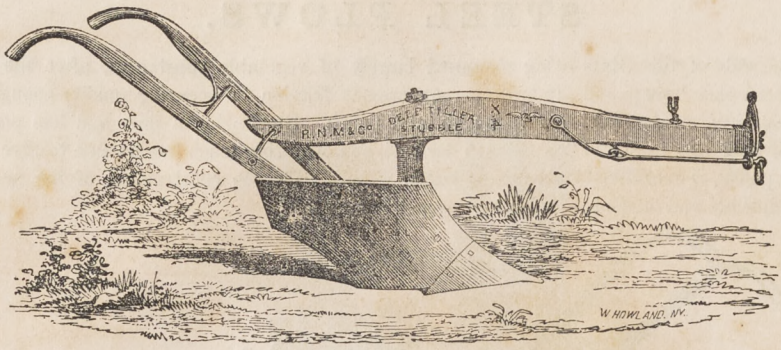


FIG. 4. **Steel Plow X 4.**

Light draft, is high in standard, and is specially designed for stubble or old-land plowing. It is of easy draft for two horses, and can be rigged like X 4½ if desired, or with straight cutter. Also, left-hand Plows of this size.

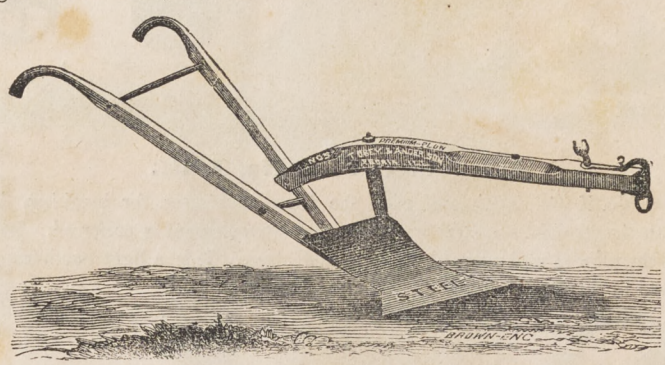


FIG. 5. **Peoria Premium Plow, No. 5,**

Is designed for cultivating corn and other crops. Cuts a furrow ten inches wide, and is drawn by one horse.

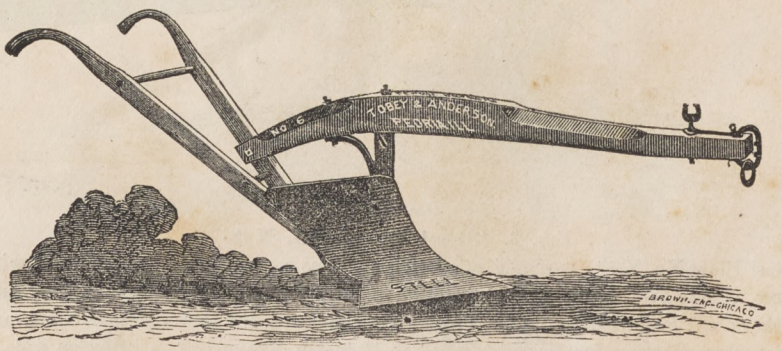


FIG. 6. **Peoria Premium Plow, No. 6.**

Medium size two-horse, cutting a thirteen-inch furrow, eight to ten inches deep. Works well in all old-ground plowing on the prairies. Covers perfectly, throwing up the earth

light and well pulverized. In heavy stubble it works admirably, seldom chokes, and buries the straw entirely out of sight.

Clay-Soil Plow, No. 6.

Medium size two-horse plow. Is similar in shape to the Peoria Premium Plow No. 6, with the exception of being less bluff to the soil, and preferable on account of ease of draft in stiff clay lands. It is made strong, and always with beam strapped and duckbill point, unless otherwise ordered.

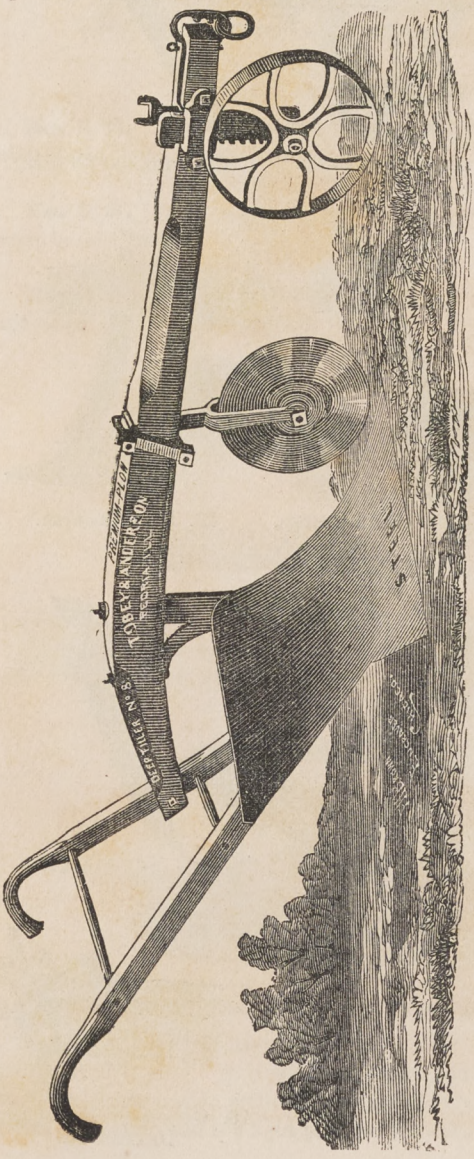


FIG. 7. **Deep Tiller, No. 8.**
(NEW MODEL.)

Deep Tiller No. 8, is designed and stocked for three horses. Cuts a fourteen-inch furrow, ten to twelve inches deep. It is high in the mold-board and beam, and for breaking up old lands deep, and to save sub-soiling, it has no superior. It works well in all soils, and in stubble covers the straw perfectly. A Gauge-Wheel is of service, as the double-trees are heavy when the team is three horses. Draft-Rod and Patent Clevis is a good attachment, as it then can be used with cattle or two horses. Duck-bill Point adds much to its durability.

Illustrations of the various Trimmings of the Plow.

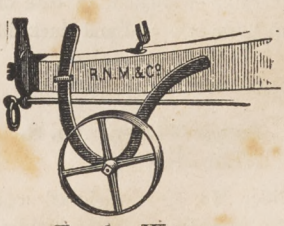
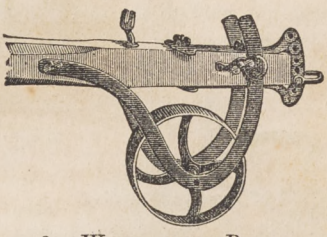
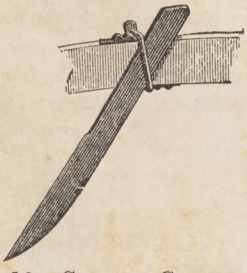


FIG. 8. WHEEL.



9. WHEEL UNDER BEAM.



10. STRAIGHT CUTTER.

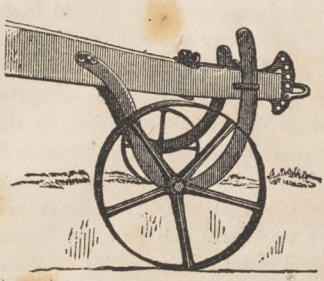
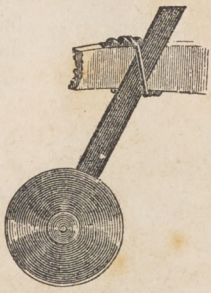
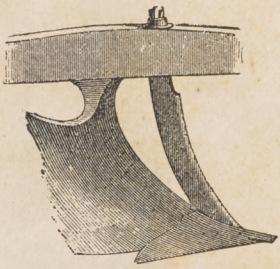


FIG. 11. LARGE AND SMALL WHEEL.



12. CIRCULAR CUTTER.



13. LOCK COULTER.

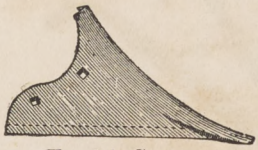
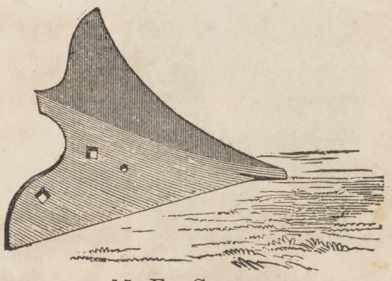


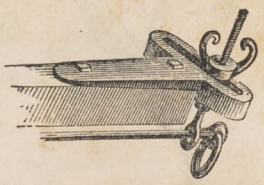
FIG. 14. SHARE.



15. FIN SHARE.

16. CUTTER.

FIG. 17. SCOTCH CLEVIS.



18. QUADRANT CLEVIS AND DRAFT ROD.

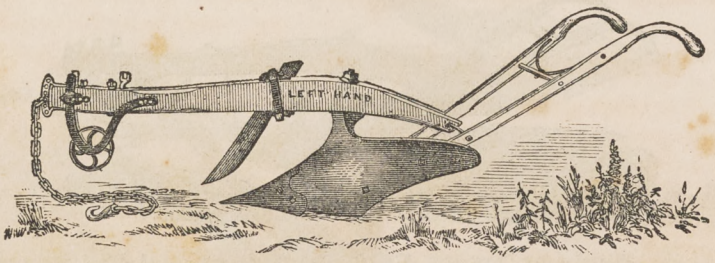


FIG. 19. **Left Hand Plow, No. 1 B.**

No. 1 B. A large one-horse Plow ; but frequently used with two horses. Also, same size, Right Hand.

No. 2 B. A two-horse Plow, same as the above, but one size larger, and extensively used in this State.

Eagle No. 0, is a size suitable for two horses at the South or one at the North, is sometimes used with two horses at the North. It is of very easy draft.

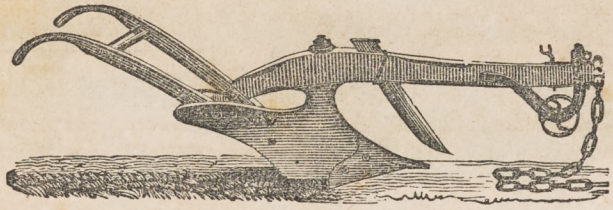


FIG. 20. **Eagle No. 1. With Wheel and Cutter.**

EAGLE No. 1 is a sod or stubble plow, and is quite light of draft for two horses or oxen, turns a furrow six inches deep and eleven inches wide.

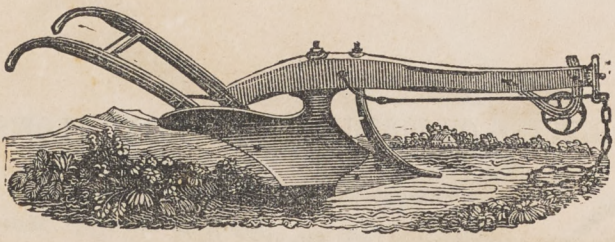


FIG. 21. **Eagle No. 2. With Wheel, Draft Rod and Dial Clevis.**

Eagle No. 2 is a size larger than Eagle No. 1, and is a medium two horse or cattle sod or stubble plow. It is adapted to turn sod furrows four to seven inches deep by twelve to fourteen wide, and will work some deeper in stubble plowing. It is rigged with wheel and cutter, and is a light plow for two cattle or horses.

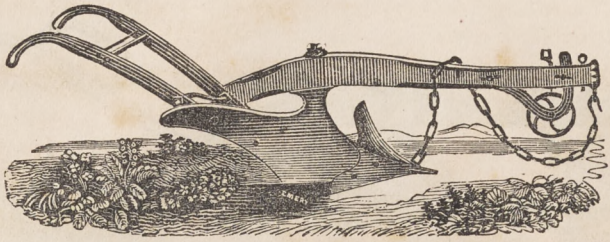


FIG. 22. **Eagle or Sward C. With Wheel and Fin Share.**

Sward C is a trifle larger than Eagle No. 2, and is a two or three cattle or horse plow, working from four to seven inches deep by twelve to fifteen inches wide.

It can be rigged with a straight cutter, for turning lapped sod furrows, seven inches deep by twelve inches wide.

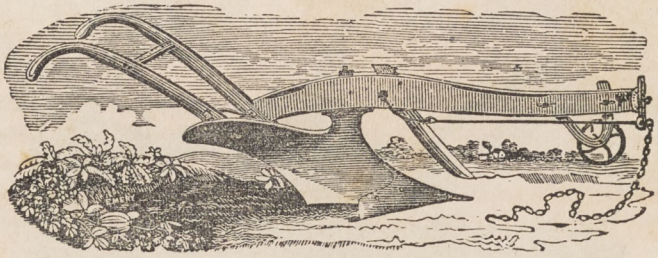


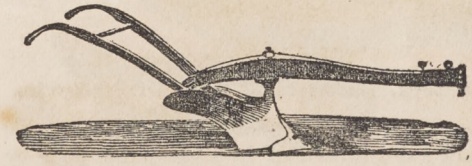
FIG. 23.

Eagle No. 20, With Wheel, Cutter, Draft-Rod and Dial Clevis.

Eagle No. 20 is a very strong four cattle or horse plow, adapted to deep, heavy work, having a mould-board of great turning power. It is rigged with wheel, cutter, draft-rod and dial clevis, and turns a furrow nine and ten inches deep.

RIDGING OR DOUBLE MOULD-BOARD PLOWS.

FIG. 24.



No. 1¼, Double Mould-Board.

A light one horse plow, used for opening drills to plant potatoes, corn, &c.

No. 1½ is similar in construction to No. 1¼, but is a size larger.

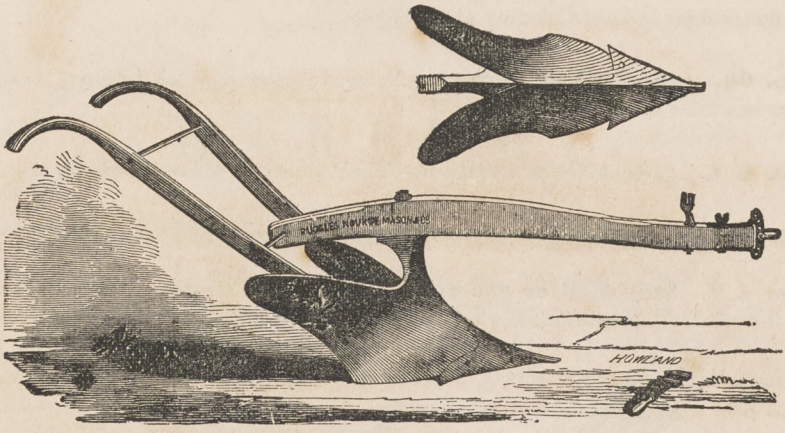


FIG. 25. **Double Mould-Board Plow No. 2.**

Of same construction and use as the 1½, but one size larger.

RICE TRENCHING PLOW.

This plow is made from a pattern furnished by an eminent Southern planter. It will do the work of many hands with hoes, in trenching a field for the rice crop, and will be found a great labor-saving implement. It is an excellent implement, also, for opening drills for corn or cotton, and for various root crops.

HILL-SIDE OR SWIVEL PLOWS.

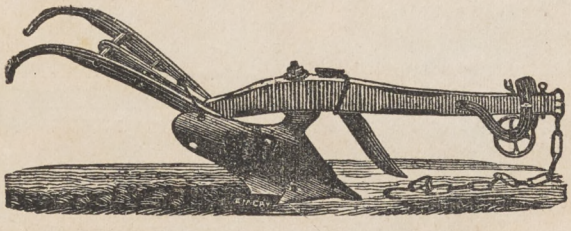


FIG. 26. **Hill-Side or Swivel Plow.**

Of the above plows there are a variety af sizes. They are so constructed that the mould-board is easily and instantly changed from one side to the other, which enables the operator to perform the work horizontally upon side-hills, going back and forth on the same side, and turning all the furrow slices downward.

No. 0. Side-Hill or Swivel.—A light one-horse or mule plow, more particularly designed for *horizontal* plowing at the South.

No. 00. Side-Hill or Swivel.—A large one-horse plow for the North, or suitable for two mules at the South.

No. B 1. Side-Hill or Swivel.—A light two-cattle sod or stubble plow.

No. A 1½. Side-Hill or Swivel.—A medium size two-horse or cattle plow.

No. A 2. Side-Hill or Swivel.—A large two-cattle plow—is sometimes used with three or four horses, according to the nature of the soil.

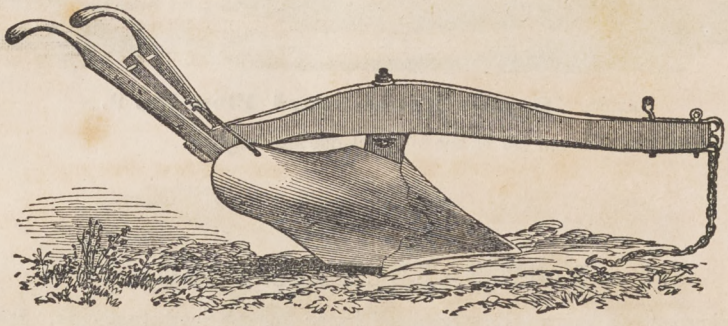


FIG. 27.

No. A 3. Side-Hill, or Swivel.—A large four or six-cattle plow, made very strong. It is suitable for heavy farm or road work.

SUBSOIL PLOWS.

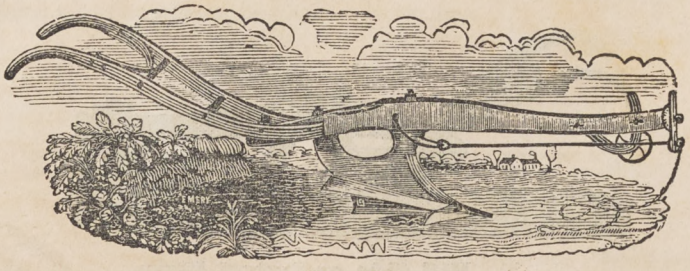


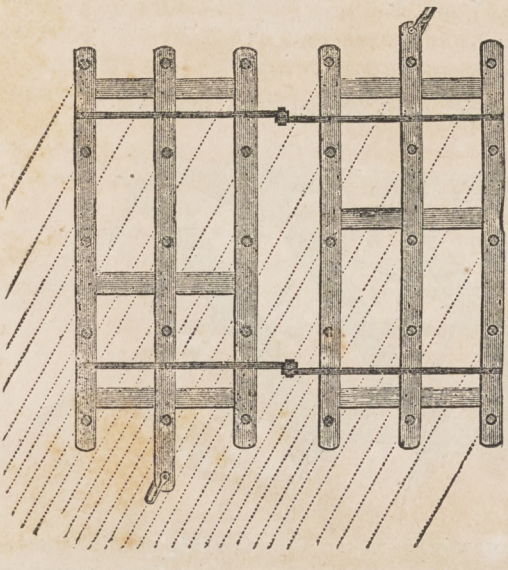
FIG. 28.

We have various sizes of the above, both Cast Steel and Iron.

HARROWS.

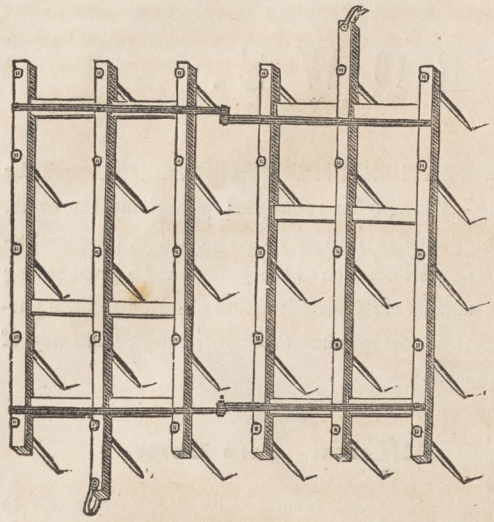
A well-constructed harrow is an important and effective implement in fitting the soil for the reception of seed, by breaking up clods, disengaging roots, and pulverizing the earth. Great improvements have been made within a comparatively recent period in the construction of the harrow, by which a more perfect pulverization of the ground and a great saving of time and strength are each secured; and he must have lived and observed to little purpose, who is content to use the old clumsy and coarse harrow of former days, when any of several improved forms are so readily obtained.

FIG. 41. **Improved Hinge Harrow—Two Horse.**



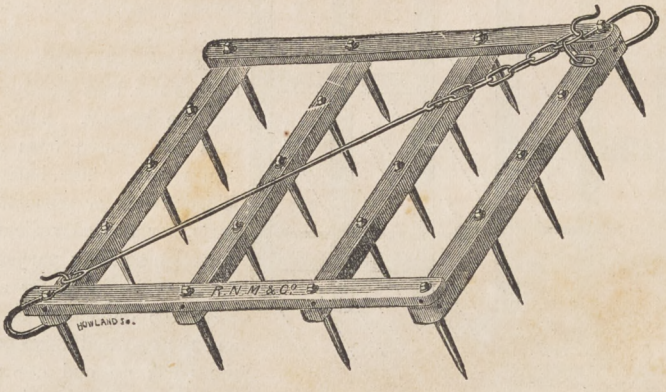
This harrow is usually made to take a breadth of five feet. It is composed of two pieces of frame-work, connected to each other by iron hinges coming together like common barn-door hinges, and which, extending across the pieces widthwise, are bolted to each bar, thus greatly strengthening the harrow. The ends of the bars are secured from splitting by iron rivets. The harrow may be folded double, or separated into two parts, for the convenience of transportation or other purposes. Either half may be lifted for any purpose while the implement is in motion; and the easy and independent play of the parts up and down upon the hinges, enables the instrument to adapt itself to the surface of the ground in all places, so that whether going through hollows, or over knolls and ridges, it is always at work, and every tooth has an operation upon the soil. There are thirty teeth in the harrow, and yet they stand equi-distant and wide apart each way, so that while from their number and arrangement the ground is worked fine, they are not liable to clog. This harrow is made heavy, or of white oak bars three inches square, with teeth $\frac{3}{4}$ or $\frac{7}{8}$ inch square, to fit it for rough land and the pulverizing of sod furrows. It is made to draw either end forward; and when the teeth become dull by working in one direction, the team may be hitched to the other end, and they are sharp again.

FIG. 42. **Improved Hinge Harrow — One Horse.**



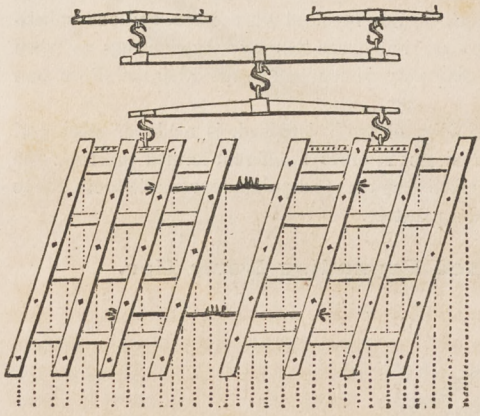
This harrow is of the same length and breadth and construction as the one represented in the preceding cut. But it is made quite light, of white ash bars, 2 to 2½ inches square, with teeth of ½ inch steel. It is adapted to the draft of one horse, or two small mules, and for raising a fine mellow seed-bed in old ground, and covering grain and grass seeds therein. The teeth standing a foot apart each way, are not liable to clog, and yet their number and arrangement is such as to work the ground into a fine tilth. With this harrow, one horse will go over as great a breadth of land in a day as is usually accomplished by two horses. The instrument may be drawn either end forward.

FIG. 43. **The Expanding and Reversible Harrow.**



The Expanding and Reversible Harrow is so constructed as to admit of being widened or narrowed, to do coarser or finer work, as circumstances may require. The two bars on top of the frame-work, are connected with the four under bars by the outside teeth, the upper parts of which are rounded and shouldered, with nuts and screws on the top, and on which the entire frame swivels or turns in expanding and contracting, which is done simply by shortening or lengthening the chain on the top. Thus the harrow is made any desirable width, and any degree of fineness, while the teeth in every position operate independently of each other. The harrow is constructed to be drawn either end forward, so as to secure sharp teeth, and is folded completely together for transportation. Various sizes, made heavier or lighter, are supplied to order.

FIG. 44. **The Scotch Harrow.**

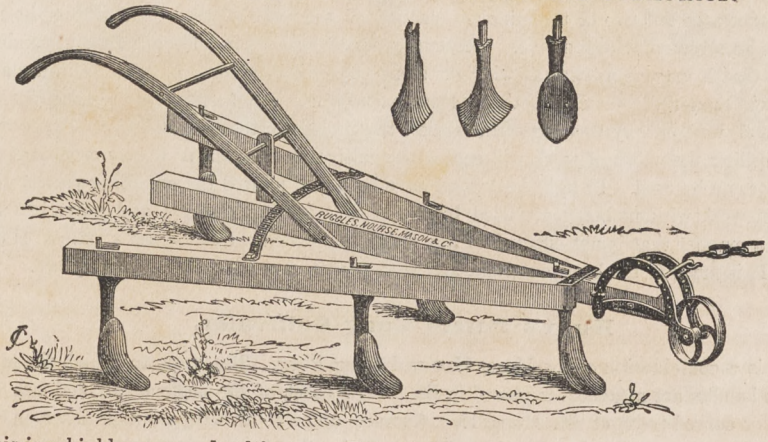


This is a Hinge Harrow, and may be used single or double. It is made of several sizes.

CULTIVATORS.

The Cultivator is in most cases made to be drawn by one horse, and is principally used between the rows of cultivated crops, such as corn, potatoes and other root-crops, cotton, &c., though it is employed for pulverizing the ground preparatory to its receiving seed; also for covering the seed of grain, and in such cases is sometimes made of a larger size, to be drawn by two horses or oxen. For working between rows of corn or other crops, it is constructed to expand or contract according to width of rows apart. It stirs the surface of the earth between rows, working as near them as may be desired, and may be gauged so as not to run deep enough to injure the roots of the crop; exterminates grass and weeds much more effectually than the hand hoe; pulverizes the surface-soil, making it light and friable, so as to admit the dews, light rains and atmospheric influences; saves a great amount of hand labor, and promotes the growth and product of the crop.

FIG. 45. **Expanding and Reversible-Tooth Cultivator.**



This is a highly approved cultivator. The points or shares of the teeth are made of steel

or cast iron, and are fastened to the shank or standard by bolts or nuts, so that either kind of shares may be used on the same standard, cheaply replaced when worn, and one substituted for the other. The shares being also reversible, are thereby very enduring, as when one end is too much worn to be effective, they may be changed to the other end down, and a double amount of service obtained.

The tooth represented at the left, in the Fig. of teeth detached, is made of steel, and known as "Rogers Patent," and may be used, but requires a different-formed mortise; the center tooth is cast iron, and fits the same mortise as the steel-pointed reversible-tooth above described. The various teeth are furnished separately.

FIG. 46. **Howe's Improved Expanding Horse Hoe.**

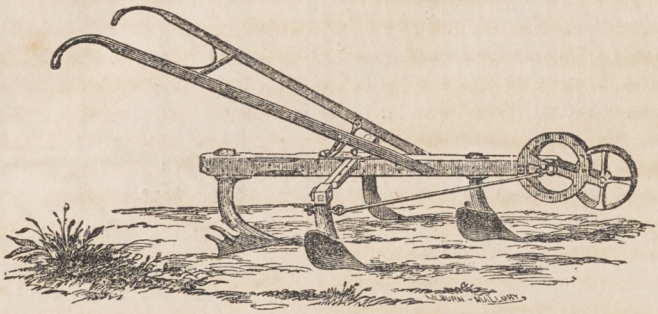


Fig. 46 represents an improvement recently invented by J. A. Howe, and applied to Knox's Patent Horse Hoe, which is designed for the hoeing or cultivation of corn, the various root crops, cotton, hops, nurseries, and all crops that require a frequent stirring of the soil. It is light, easily managed, turns, pulverizes and mixes the surface, and is consequently highly destructive to the weeds and grass. The forward tooth is a miniature double mould-board plow, throwing up two ridges of earth, which are not disturbed by the side teeth; the side teeth are miniature single mould-board plows, and may be changed from one side of the implement to the other, so as to turn the soil from the rows when the plants are small and tender, or towards them at a later period, as may be desired; the broad rear tooth penetrates but two or three inches, cutting off the roots of weeds, and sifting the soil through its elevated prongs above. The improvement consists in adding *parallel expanding bars*, so that it may be worked as wide or as narrow as is desired. The side teeth are also supported by a rod connected with the front part of the hoe, thereby giving them permanency, and without any wearing of the socket that holds the tooth to the bar. This power of controlling the width of work will enable the cultivator to adapt it to any crop where a horse hoe can be used. In light lands that have been well plowed the preceding year, it does excellent work without being preceded by the plow. It lifts, changes and pulverizes the soil in a manner that is not effected by any other implement, except Knox's Patent Horse Hoe. It is made of the best materials, and with proper care will last for many years.

Knox's Patent Gang Cultivator.

This is a combination of the Horse Hoe and Gang Plow. The beam to which the team and the handles are attached, is placed in the line of draft of the instrument, and has the coulter or curved tooth of the Horse Hoe, forward, and a tooth with a double share in the rear for the purpose of balancing the cultivator. Another beam, placed diagonally to the

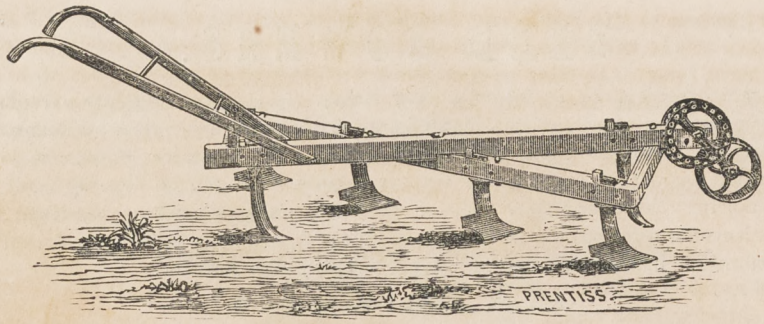


FIG. 47. KNOX'S PATENT GANG CULTIVATOR.

draft or to the first named beam, contains a row of small steel plows, each cutting and covering a breadth of earth of about seven inches, inverting and pulverizing the soil to the depth of from one to four inches, as may be desired, and raising a fine tilth. The instrument is perfectly balanced, so as to run straightly and steadily, and is easily managed in passing trees or stumps, and over rocks or large stones. For covering grain, or for preparing the surface soil for crops of any kind, and covering compost manure, it is often preferable to the harrow. The Gang Cultivator, when designed for one horse, is constructed with four small plows, and carries a breadth of work of two and a half to three feet; and for two horses, it is made with six teeth, and a corresponding increase in length of beams, and carries one third more breadth of work.

FIG. 48. **Horse Hoe for Cotton or Carrots.**

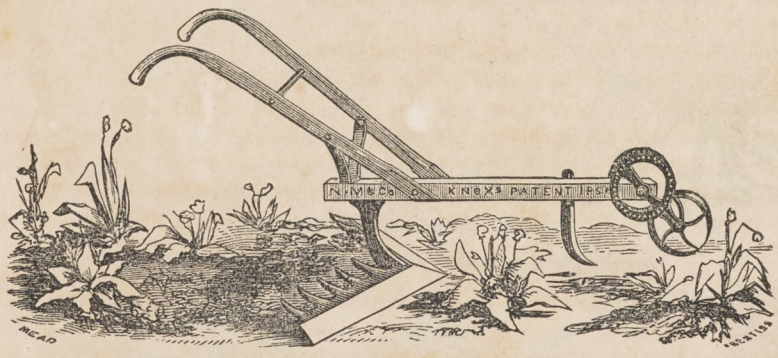
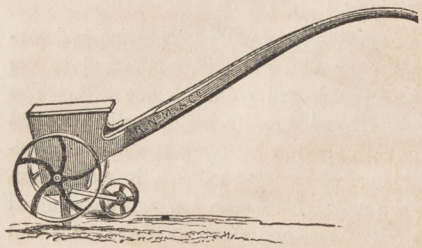


Fig. 48 represents Knox's Horse Hoe adapted to the cultivation of cotton, or of carrots and other root crops. The forward tooth is simply a coulter to balance the hoe and keep it in a straight course. The rear tooth has a broad steel share, spreading in all to the width of twenty inches, or ten inches each way from the center—the cutting edge being on an easy angle backward and outward from the point, adapted to make a clean and easy cut. The tooth has also five prongs or fingers on each side, above and back of the steel share, which are of wrought iron, swaged or formed on a gentle upward curve, and having sharp edges, so that the soil lifted by the broad share is combed or harrowed on the under side by the fingers—the weeds being sifted out and left on the surface to wilt and die, and the earth reduced to a mellow tilth. A broader or narrower rear tooth may be used on this instrument, according to the width of rows of the crop to be hoed.

SEED SOWERS.

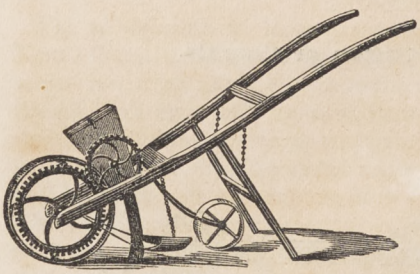
The seed sower is in use at the most busy season. It dispenses with the exceedingly fatiguing operation of sowing by hand, and in a stooping position, saves much valuable time in getting in the seeds of roots and vegetables, enables the farmer or gardener to do his work at the proper time, and sows for him much better than can be done by hand, thus giving a better chance for a good stand of the young plants, and for a good crop. The Sowers hereafter described will be found to be sure and accurate in distributing the various kinds of seeds. Printed directions for using accompany each machine.

FIG. 49. **Seed Sower No. 0.**



This is a small hand drill, designed for the garden. It is a cheap, light, pretty sower, well adapted to the wants of those who cultivate root and vegetable crops on a limited scale, and will sow all such crops, excepting peas and beans. It opens the ground, sows the seed, covers and rolls it, at one operation or passing.

FIG. 50. **Seed Sower No. 1.**



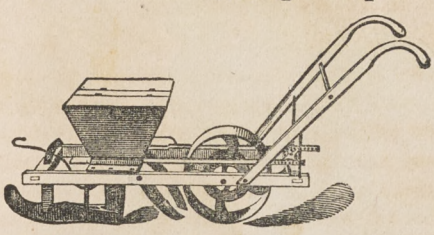
Seed Sower No. 1, is adapted to garden or field sowing, is a size larger than No. 0, and is designed for sowing the same kinds of seeds. The cylinder and brush within the hopper go by gearing, and thus are always sure to operate.

FIG. 51. **Seed Sower No. 2.**

Seed Sower No. 2, combines several important improvements upon the English Drill, particularly in those additions which fit it for sowing large seeds. The brush and cylinder

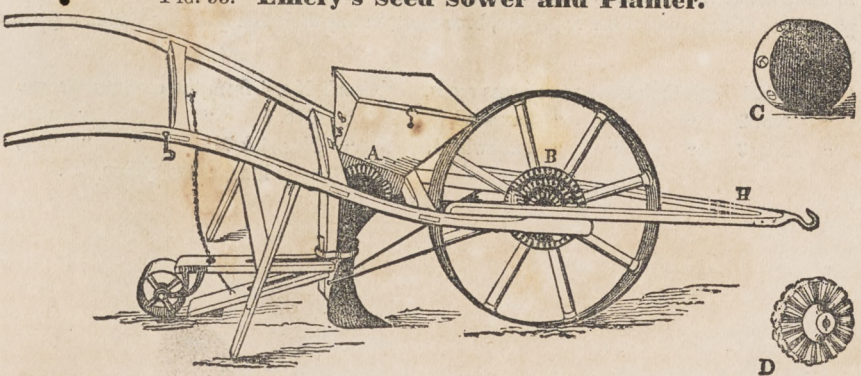
of No. 2, which distribute the seeds, go by graduated rows of iron cogs or gearings, which operate simply and uniformly, are durable, not likely to get out of order, and by which the speed of the dropping may be increased or lessened, large or small seeds sown, in all their varieties, at any desirable distances, in hills or drills, and the several necessary changes for the purpose are made with ease and expedition. The brush is used for small seeds, as turnips, carrots, &c., and the cylinder for corn, peas, beans, &c. Six tins, with different sized holes through them, accompany each machine, to be used in connection with the brush, as circumstances may require.

FIG. 52. **Billings' Improved Planter and Fertilizer.**



This machine is made to be drawn by one horse or mule, and for planting cotton, corn, broom corn, beans, &c., and dropping a fertilizer with the seed. It is of durable and simple construction, not liable to get out of order, so that any person of ordinary tact can at once understand and manage it; and is adapted to work with certain and good effect on stony and sward land, as well as on mellow intervale or other smooth land. The hopper above the beams is made of two apartments, one for the seed and the other for the fertilizer. By a very simple but sure and unerring arrangement of the working parts of the machine, it may be gauged to drop any desired quantity of seed, and of fertilizer with it, at any distance apart, in hills or in drills, of equal depth,—the seed being dropped in the furrow opened by the share below, falling through the rear or hollow standard of the share, to the bottom of the furrow, and the fertilizer at the same instant being dropped through the same hollow standard and deposited with the seed; the curved iron blades, directly in rear of the share, cover the seed and fertilizer to the desired and a uniform depth; and the broad wheel, by which the machine is moved, rolls or presses the soil down upon the seed much more uniformly than is ever done by the hand hoe. Thus, with this machine, the operator is not only enabled to plant his seeds rapidly, at any desired distance and depth, but also at the same time to cheaply and expeditiously deposit any fertilizer with the seed,—as guano, superphosphate of lime, bone dust, plaster, &c.,—for promoting a quick germination and rapid growth of crop.

FIG. 53. **Emery's Seed Sower and Planter.**



This machine, substantially like Sower No. 2, is adapted to hand or horse power; to

sowing seeds continuously in drills, or planting them in hills. By change of cylinders, it sows or plants large or small seeds. The gearings for the purpose of producing a rapid or slow motion, in order to adapt the machine to different kinds of seed, are simple, yet excellent. They are made of iron, and durable, and work with regularity and precision.

FIG. 54. **Horse Grain Drill.**

Fig. 54 represents the Horse Grain Drill, for drilling the various kinds of grain. There are several modifications of the Grain Drill, varying in price, and which can be furnished to order. A man and team, with the horse drill, can sow from 10 to 12 acres per day.

Luce's Patent Broadcast Sower. FIG. 55.

This machine is rigged for one or two horses. It will sow a breadth of wheat or rye of thirty-two feet, as fast as the team will walk: it sows a less breadth of lighter seed, or from eighteen to twenty-five feet. It can be adjusted to sow any kind and quantity of seed to the acre, at the pleasure of the operator. It also sows lime, ashes, plaster, guano, superphosphate of lime, and other fertilizers, broadcast, in any desirable quantity, and in a perfect manner.

Crank No. 1 from the center sows grass seeds,
" No. 2 " " " flax seed,
" No. 3 " " " buckwheat,
Crank No. 4 from the center sows rye,
" No. 5 " " " wheat,
" Nos. 6 & 7 " " " oats, lime, ashes, guano, &c.

Fig. 55. **Luce's Patent Broadcast Sower.**

HAYING AND HARVESTING MACHINES AND TOOLS.

THRESHERS—RUSSELL & CO., 8 and 10 Horse.
" SPENCER & CO., 8 and 10 Horse.
" TREADWELL & CO., 8 and 10 Horse.
" PITTS, 8 and 10 Horse.
" WHITMAN, 4, 6, and 8 Horse.
" EMERY, 2 and 4 Horse.

MOWERS—WALTER A. WOOD'S PRIZE MOWER.
" BUCKEYE.
" FARMER.
" McCORMICK.
" MANNY.
" EAGLE.

REAPERS—W. A. WOOD'S SELF RAKER.
" McCORMICK.
" MANNY.
" HUSSEY.
" EAGLE.
" BURRALL.

HEADERS—HAINES' ILLINOIS.
" FARMER'S FRIEND IMPROVED.

POWERS—PERRIGO.
" RUSSELL.
" PITTS.
" WHITMAN.
" SMITH.
" SPENCER.
" FIELD.
" EMERY.
" BURT.

CRADLES—GRANT.
" WILCOX.

SCYTHES—BLOOD.
" HARRIS.

FORKS—NAUGATUCK.
" VAN ORNUM.
" BATCHELLER.

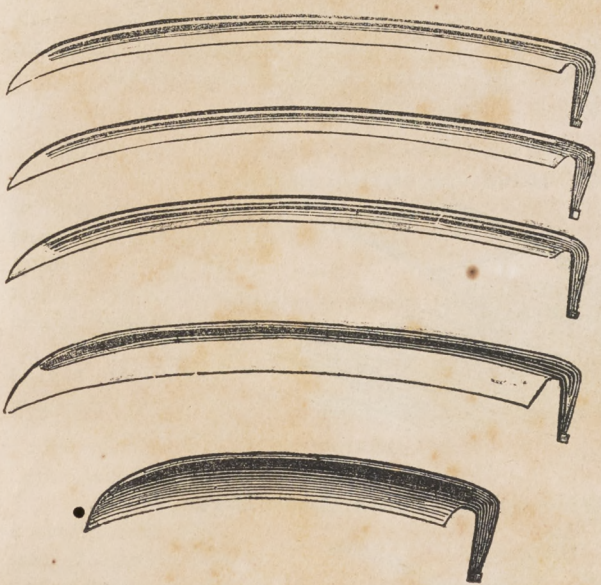
RAKES—WILCOX REVOLVING HORSE.
" SPRING TOOTH, HORSE.
" DELANO, HORSE.
" ROBB, HAND.
" PORTER, HAND.
" WILCOX, HAND.
" FIELD, HAND.

SNATHS—LAMSON.

For most of the above machines we are agents for the Pacific Coast, and have them in liberal quantities, and can supply them to Merchants and Farmers on liberal terms.

Grass, Lawn, Grain, and Bramble or Bush Scythes,

OF CAST, SHEAR, AND GERMAN STEEL. FIG. 56.

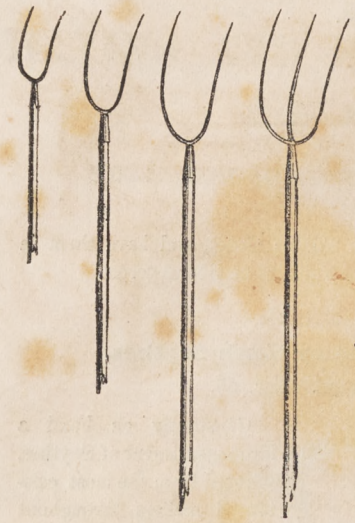


Constantly on hand a large assortment of Scythes, selected from the most celebrated makers throughout the country, for which the proprietors are agents.

FIG. 57. **Scythe Snath.**

Also a great variety of Snaths from the different makers, of various qualities and prices, with and without scythes attached, and some very strong, with two heel rings, for bushes. Several important improvements have recently been made in the manner of confining the scythe.

FIG. 58. **Forks.**

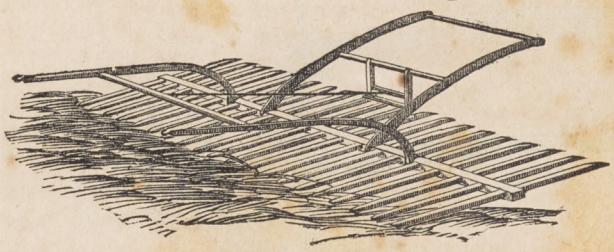


Cast Steel Hay and Barley Forks, 2—3—4 tines, of Batcheller & Sons, the Naugatuck Co., Van Ornum, Braley & Co., and other manufactures, made of the best materials, and for this market.

FIG. 59. **Hand Hay Rakes,**

From many different makers, and of various qualities and sizes, two and three bowed, and made of the best white ash, with walnut bows and teeth.

FIG. 60. **Revolving Horse Rake.**



This Rake is very extensively used in all parts of the country. Its cheapness and efficiency make it the most desirable rake in use.

With it, a man, boy and horse, are equal to ten men with hand rakes.

FIG. 61. **Wire Spring-Tooth Horse Rake.**

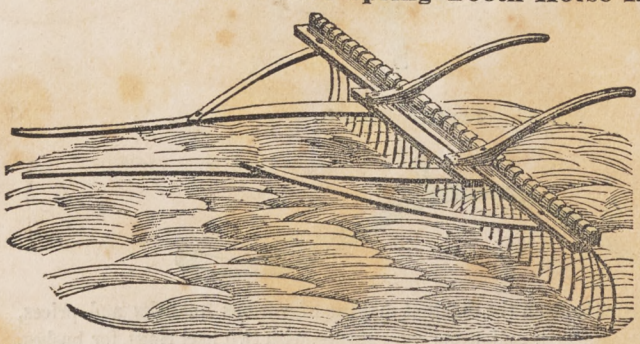
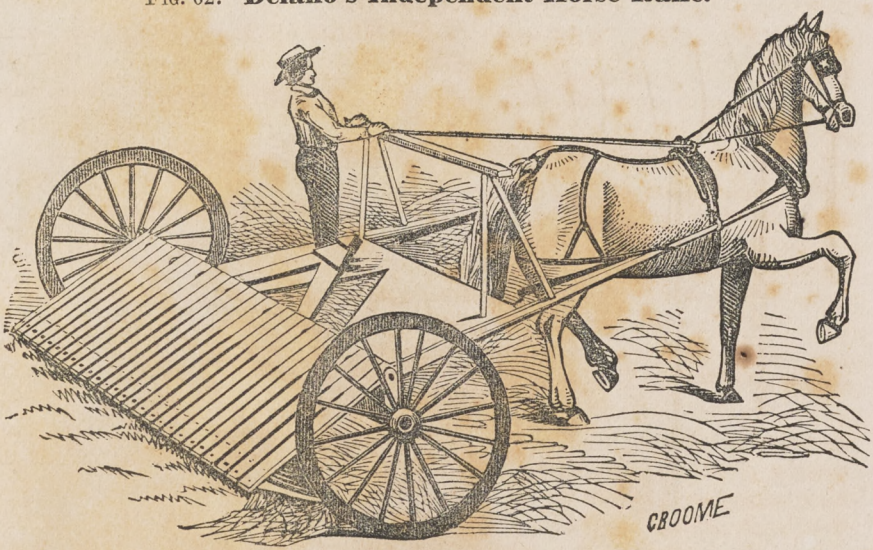


FIG. 61 represents a wire spring-tooth horse rake, a desirable kind for new, rough grounds, where it has some advantages over those with wooden teeth.—This rake requires more strength to be applied by the holder, and does not leave the hay in a condition so free from dust, &c., as other kinds; but by some farmers, in particular locations, it is preferred to any other rake.

FIG. 62. **Delano's Independent Horse Rake.**



This Rake is usually fitted to the hind wheels of a single horse wagon. Each tooth acts separately, its head being suspended by a rod. The operator cleans the rake, when filled with hay, by pressing down upon the triangle, without stopping the horse. It operates well on all land, and requires but one person to work it, who can ride comfortably while at work.

Wilcox's Grain Cradle. FIG. 63.

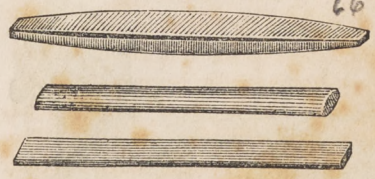
This is considered one of the best cradles now in use. The fingers are adjusted by screws in the most simple manner. It is made of the best white ash timber. It is taken apart to pack for transportation, and put together with the greatest facility.

FIG. 64. **I. T. Grant & Co.'s Grain Cradle.**

This is made of the best white ash timber, with wood or wire braces. The heel of the snath is bent forward in order to get the whole cut of the scythe, and the fingers are set back of the scythe, to make them work equally easy in large or small grain. The cradle is easily taken apart to pack; and only a hammer is required to put it together again. It is made with four or five fingers and the patent nib.

The scythes on both the above Cradles are of the best material, light, and stiff.

Scythe Rifles. FIG. ~~65.~~ 66



Scythe Stones. FIG. ~~66.~~ 65

FIG. 65 represents Austin's celebrated Emery Rifle, Clark's Quinebaug, and several other kinds.

Fig. 66. The first in the cut represents the English Talacre, which took the first premium at the World's Fair. It is a very superior stone, having a sharp grit. The other two represent the Cummington, Indian Pond, Norway Rag, Quinebaug, and others quarried in this country.

FIG. 67. **Grindstone Fixtures.**

FIG. 67 represents a Grindstone Arbor, Crank, Rollers and Roller Covers. To the arbor is attached a fixed and loose flange; the stone is placed against the fixed flange and held firmly between the two by a large screw nut, which works on a screw cut round the arbor, forcing the stone and loose flange against the tight one. In this way the stone is not liable to get out of place, and the liability to split, by the force of wedges used to confine the stone hung on the common arbor, is entirely avoided. There are four different sizes and lengths, adapted to the use of both the mechanic and farmer.

FIG. 68. **Grindstone, Mounted.**

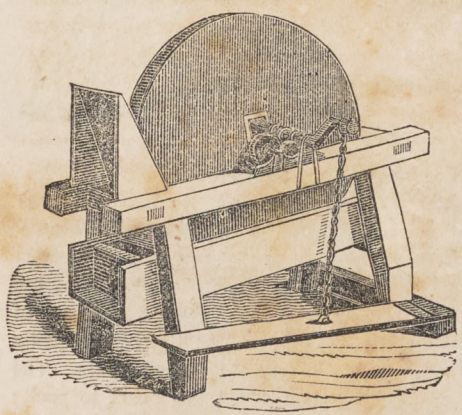


FIG. 68 represents a Grindstone in full rig, hung on rollers, and turned by a crank on one side and a treadle on the other. The treadle arrangement is designed more particularly for mechanics, for the sharpening of small tools without the aid of a second person to turn, the grinder operating the stone by his foot upon the treadle. The fixtures are very durable, and save much friction and labor in turning the stone. Stones variously hung, of various sizes and prices, and of the best quality, are sold by the proprietors.

Eagle Mower and Reaper---Heath's Patent.

Some of the superior merits of this machine are set forth under the following heads :

1. The machine has no gear. The main or driving wheel, on which it moves, has two cams in its face or rim ; low down, near the ground, is a friction roller, between the cams : this friction roller revolves on a pin which is attached to the vibrating bar. The vibrating bar is below the frame in front of the wheel, and moves between stirrups on the frame. The inner end of the vibrating bar is attached to the cutter bar. As the main wheel revolves, the friction roller is driven backward and forward by the cams or zigzags, imparting motion to the cutter bar. This main wheel and friction roller constitute the whole driving machinery, and the application of the power being direct to the cutters, very little of the draft is consumed by friction, so that in fact the machine is of very light draft and easily operated by two horses for an entire day, without any necessity of change of team.

2. There are two sets of cutters—an upper and lower set—the upper set vibrating, and the lower ones remaining stationary. The lower cutters project an inch beyond the upper ones, and serve the double purpose of cutter and guard—being each ½ in. thick and 1¼ in. wide. Both upper and lower cutters are made of wrought iron, faced with cast steel ; and are equal in quality to the best edge tools in use. The cutters are held together by a spring pressure bar, and each one is held to the bar by a screw bolt, so that in case of accident the injured one can be removed and another substituted in a moment, in the field. It will thus be seen that the grain or grass is cut between two sharp edges, of the best quality of temper,—the cutters acting like shears, excepting that one blade is stationary. Hence the ease and certainty of cut, whether the grain or grass be wet or dry, so that it is never necessary to urge the team beyond a natural gait, the machine cutting as well at a moderate as at a high speed.

3. The arrangement for elevating the cutters in passing obstructions, is simple, convenient and effective. In front of the seat, but in no way connected with it, is a platform or foot-board, attached to the back rail of the machine. When cutting through a wet place or slough, or passing other obstructions, the driver rises up and with his right foot throws his weight, or enough of it, upon the foot-board or lever, to instantly raise the cutting apparatus from one to eight inches, as may be desired, without checking the team ; and, the obstruction passed, he removes his foot from the lever, and the cutters at once drop down and are at work. Again, in turning at corners, it may sometimes be necessary to drive over the cut grain or grass ; and in such case, by simply elevating the front part, the machine will pass over the grain or grass with as little inconvenience as a cart.

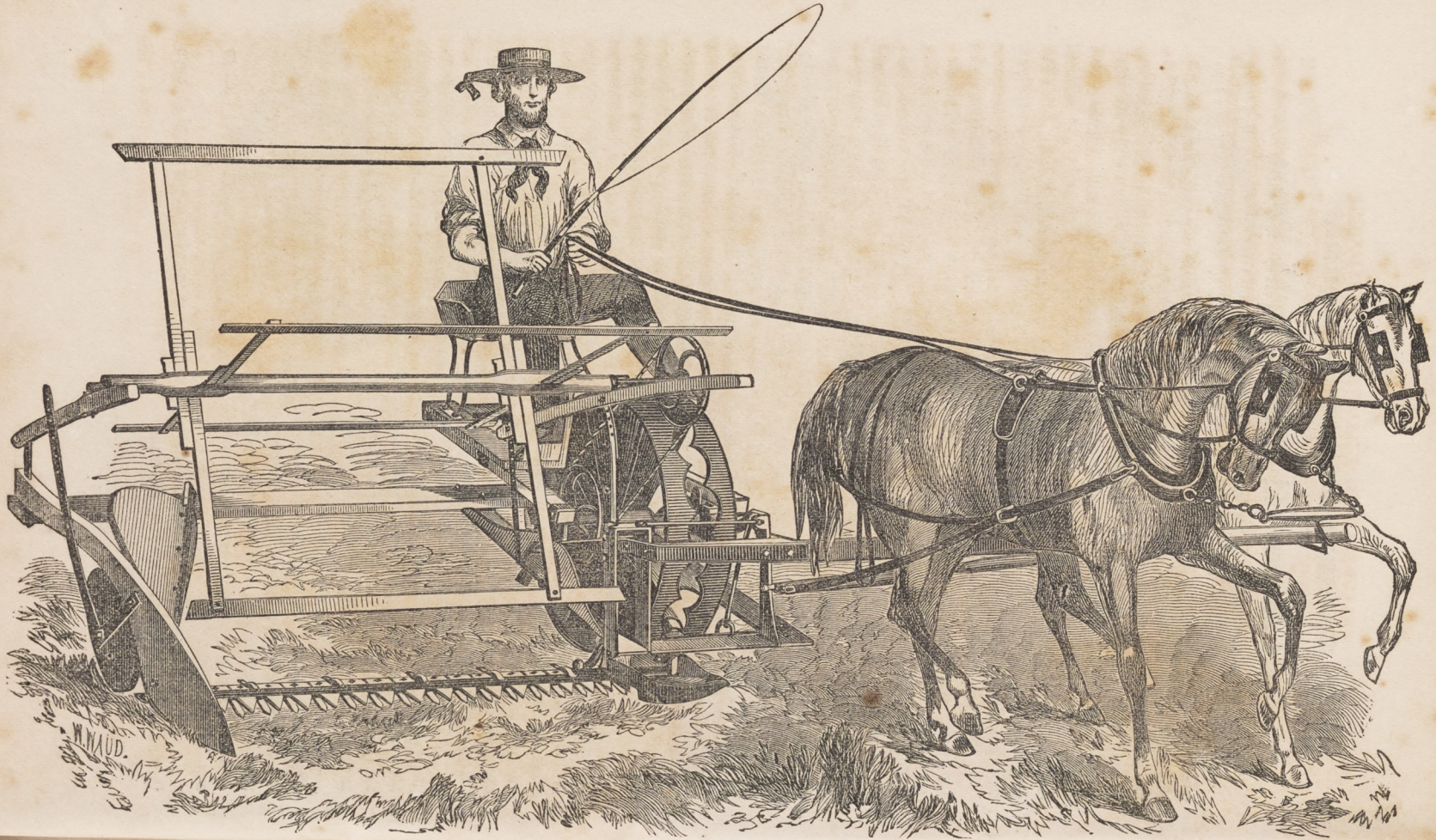
4. The seat is placed on hickory springs, which fasten to the hounds of the draft pole, just foward of the axle,—the draft pole hounds being attached to the frame back of and below the axle. The springs of the seat bear on the cap of the box, over the axle, which thus becomes a fulcrum for them. By this arrangement, the driver's weight is made to balance the weight of the draft pole—thus relieving the necks of the horses from burthen.

5. The end of the machine next to the standing grain or grass is carried on a wheel of about sixteen inches in diameter ; and the principal part of the weight being at one side of the draft pole, that counterbalances the greater length and the cutting apparatus of the machine at the other side of the pole—thereby preventing " side draft."

6. By means of a gauge-block attached to the draft pole, the cutters can be set to any desired height.

7. When the machine is stopped in the grain or grass, it can be started ahead at once into its work, without first backing the team.

FIG. 69. **Eagle Mower and Reaper.**



8. The reel is of essential service when the grain or grass leans from the machine.

Upon a trial instituted by the Indiana State Board of Agriculture, and continued during three days, the Committee awarded the highest prize to Heath's Machine. The Machine has also won the first prize at various other trials in the Western States.

The Massachusetts Society for the Promotion of Agriculture offered a premium of $1,000, to be awarded in 1856, to the inventor or manufacturer of the best Mowing Machine. Three farmers of well known intelligence and good judgment, were appointed to act as committee. The offer of the Society called out a large number of machines to compete for the prize. The Committee gave all the machines entered a thorough and careful examination, inspected the work of each, and made a report to the Secretary of the State Board of Agriculture. In this report, after speaking of several machines, which, after a preliminary trial, were ruled out, they say :

" The four other machines were tried upon another lot of grass, on patches of equal dimensions, each in succession, both when the grass was wet and dry. This was a heavy crop of clover, timothy, and redtop mixed, some of which was lodged. Portions of the lot were rolling, and the surface generally quite as far from level as our ordinary grass fields, so that upon the whole, it was an excellent lot to test the machines. They were also tried on a meadow bottom which had never been plowed, where various wild grasses, both coarse and fine, were intermixed. The trial, you will thus perceive, was a thorough one, and by it we were able to form a satisfactory judgment of the merits of the different machines."

After speaking of the merits of three of the four machines thus tested, the Committee then refer to Heath's Machine as follows :

" Heath's, like the Manny machine, has a wheel at the end of the finger bar. Like that, too, it has a reel which may or may not be used, as circumstances require. But its cutting arrangement differs entirely from either of the other machines. They each have a single knife with the blades riveted to the plate and operating through cast iron fingers or guards which, especially when the knife is dull, may be liable to get filled up and thus clog the blades. Instead of these, this machine has virtually a double set of cutters, the under set being stationary, projecting an inch beyond the upper, and thereby acting in the double capacity of guard and cutter. These, as well as the upper blades, are each independent of the other, and each attached to its bar by a screw bolt. The upper set of blades is held down by a spring pressure bar, so that the operation is similar to that of shears, the grass being cut between two sharp edges, and the machine working nearly as well at one rate of speed as another. In case of accident, therefore, a blade can be removed by any body and another substituted in an instant of time. Both the upper and lower cutters are made like the best edge tools in use, of the best cast steel, with wrought-iron backs. The iron furnishing strength, the steel can be made as hard as desirable without so much danger of breaking by use, and being made hard do not require to be so often ground. The lower cutter or guard, as you may please to call it, is half an inch thick and one and one-fourth inch wide. The upper blades are about twice as thick as those used on any other machine. This machine very evidently required less power of draft than either of the others, and did its work the best. The Manny machine weighed about 600 pounds. This weighed about 800 pounds. In its cutting apparatus, which is perhaps the most important feature of a mowing machine, we regard it as superior. We regard it also as less liable to clog than any machine with fingers or guards. In other important features it is equal to the other machines.

" We therefore unhesitatingly, confidently and unanimously express the opinion, that the

Heath machine, entered by D. C. Henderson, is entitled to a premium of one thousand dollars, if that premium is awarded the present year."

The Society accordingly awarded the PREMIUM OF ONE THOUSAND DOLLARS to the Heath Machine, as recommended by their committee.

The Eagle Reaper and Mower in England.

From the London Times.

ROYAL AGRICULTURAL SOCIETY.—MEETING AT SALISBURY, ENGLAND. The trial of reapers took place upon a field of ripe rye, near the show yard, the style and expedition of the work assuring the light-land farmer that he need not suffer a single acre of corn to shake unreaped for lack of harvest men, as was extensively the case last year, and affording promise to the grower of heavy and storm-broken crops, that he may yet hope to possess a machine able to shear without wasting, and to save both expense and the more momentous matter of time in his laborious harvesting. Undoubtedly, the greatest novelty in this department, and one of the most meritorious and valuable pieces of machinery in the whole show, is the "Heath" or "Eagle" combined reaper and mower, from the United States, and exhibited by Mr. Clayton of the Atlas Works, Dorset Square, London.

In this machine we see just the simplicity of parts and consequent lightness, the small liability to derangement in working, and yet the greatest facility of accommodation to uneven surfaces of ground and irregular and tangled croppings which recommend it as emphatically a tool for the farmer. * * * As a mower, it has gained the first prize in Salisbury.

From the Mark Lane Express and Agricultural Journal, July 20, 1857.

The attendance was numerous, and the trials gave evident satisfaction—*the greatest novelty being the mowing machine*, which worked so well that we may as certainly predict the doom of the scythe, as others have done the doom of the plow. This was not only the especial feature of the day, but promises to be one of the land-marks of the meeting. It is an American invention, exhibited by Clayton, of Dorset Square, and known as "the Heath" patent. * * * It professes to cut grain and grass at all heights, and on any kind of ground, however rough or trying. It is only right to say that its performance, so far, approaches its promise.

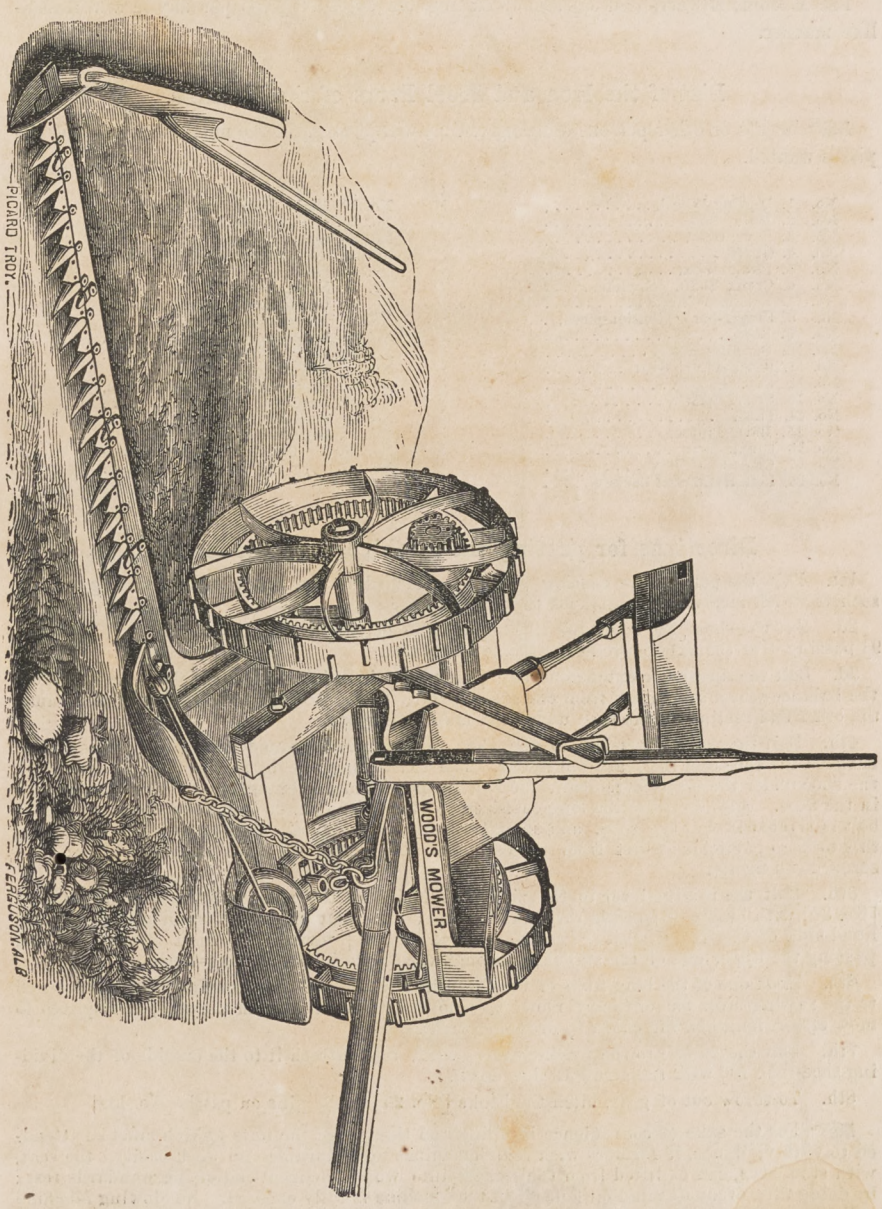
From the Salisbury and Winchester Journal.

The 'Eagle' is a machine of much better design, construction and finish than any we have as yet seen imported from America. The cutting apparatus is constructed and arranged in a manner which was quite new to the English manufacturers on the ground, and if its durability equals its efficiency in working, we may hope very shortly to see our hay crops placed beyond the uncertainty of scythe labor.

Walter A. Wood's Improved Mowing Machine. FIG. 70.

These Machines weigh 514 pounds each, run on two driving-wheels placed 30 inches apart, each wheel 28 inches in diameter. The frame rests upon and is firmly secured to the axle of the wheels, and supports the gearing and a seat for the driver. The finger-bar is attached to the Machine by one bolt, and can be easily removed by taking off one nut; and when placed upon the frame under the seat, the Machine can be driven from field to field as easily as a light cart. The knife is driven by a crank-pin, projecting from a well-adjusted balance-wheel, which gives it a steady, uniform motion; it has a rapid motion with a short stroke, which enables the Machine to do good work, when the team moves as slow as horses or oxen can walk. These Machines can be easily and instantly thrown out of gear, thereby giving motion to the driving-wheels only when moving. They cut a swath four and a half feet wide.

FIG. 70. **Walter A. Wood's Improved Mowing Machine.**



They are made of the best material and in the most workmanlike manner, and for beauty and style of finish, excel anything heretofore offered to farmers in this class of machinery.

The Machine is warranted capable of cutting ten acres of grass per day in a workmanlike manner.

List of the Iron and Steel Parts of the Machine.

☞Agents or other persons ordering extras, will please give the number or name of the pieces wanted.

No. 1. Driving Wheel,
No. 2. Main Shoe,
No. 3. Bevel Gear,
No. 4. Guard,
No. 5. Pitman Box,
No. 6. Crank Shaft, complete,
No. 7. Balance Wheel,
No. 8. Finger-bar Extension-piece,
No. 9. Loop,
No. 10. Dividing Shoe,
No. 11. Ratchet and Gear,
No. 12. Pawl Holder,
No. 13. Spiral Spring,
No. 14. Pawl,
No. 15. Bevel Pinion,
No. 16. Crank Box,
No. 17. Cross Shaft Box,
No. 18. Left Hand Seat Socket,
No. 19. Right Hand Seat Socket,
No. 20. Hook to hold Pawl out of Gear,
No. 21. Sickle Holder,
No. 22. Pitman (cast steel,) for 1859,
No. 23. Section,
No. 24. Knife,
No. 25. Upper Crank Box,
No. 26. Finger-bar Holder,
No. 27. Lever Catch,
No. 28. Long Sickle Holder,
No. 29. Lever Rest,
No. 30. Draft and Seat Standard Iron,
No. 31. Improved Pitman,
No. 32. Steel Pin for Pitman,
No. 33, Improved Sickle Holder,
No. 34. & No. 35. Dividing Shoe for regulating height of stubble,

Directions for putting the Machine together for use.

1st. Bolt the pole to the casting [No. 30] attached to the axle; on this casting are two sockets which receive the standards that support the seat.

2d. Put the shoe [No. 2] on the right hand side of the frame, the wrought-iron loop [No. 9] passing over the axle between the frame and wheel.

3d. Bolt the finger-bar extension-piece [No. 8] to which is riveted a shield plate to protect the balance-wheel and crank from cut grass, firmly to the front of the left side of the frame, the other end resting on the shoe under the main finger-bar.

4th. Bolt the main finger-bar to the shoe, securing at the same time the extension-piece between the shoe and the main finger-bar. The extension-piece fitting into the depression in the shoe under the main finger-bar; the hole in the end of the extension-piece fitting the knob in the shoe. Also securing the long cast-iron sickle-holder [No. 28] with the same bolt. This bolt is riveted fast to the shoe, and should remain in its place. Care must be used in doing this to keep particles of dirt from between the surfaces of the shoe and cutter-bar; then screw down firmly.

5th. Bolt the raising-lever to the right hand side of the pole; draft and seat standard [No. 30] with long bolt passing through the pole; then bolt the short standard to the right hand side of the frame, with the cast-iron catch [No. 27] towards the front of the Machine, passing the upper end of the standard through the staple in the raising-lever.

6th. Hook one of the long links of the chain into the end of the wrought-iron arm attached to the raising-lever for ordinary mowing, into the third link from the end; if required to mow closer, lengthen the chain by dropping another link.

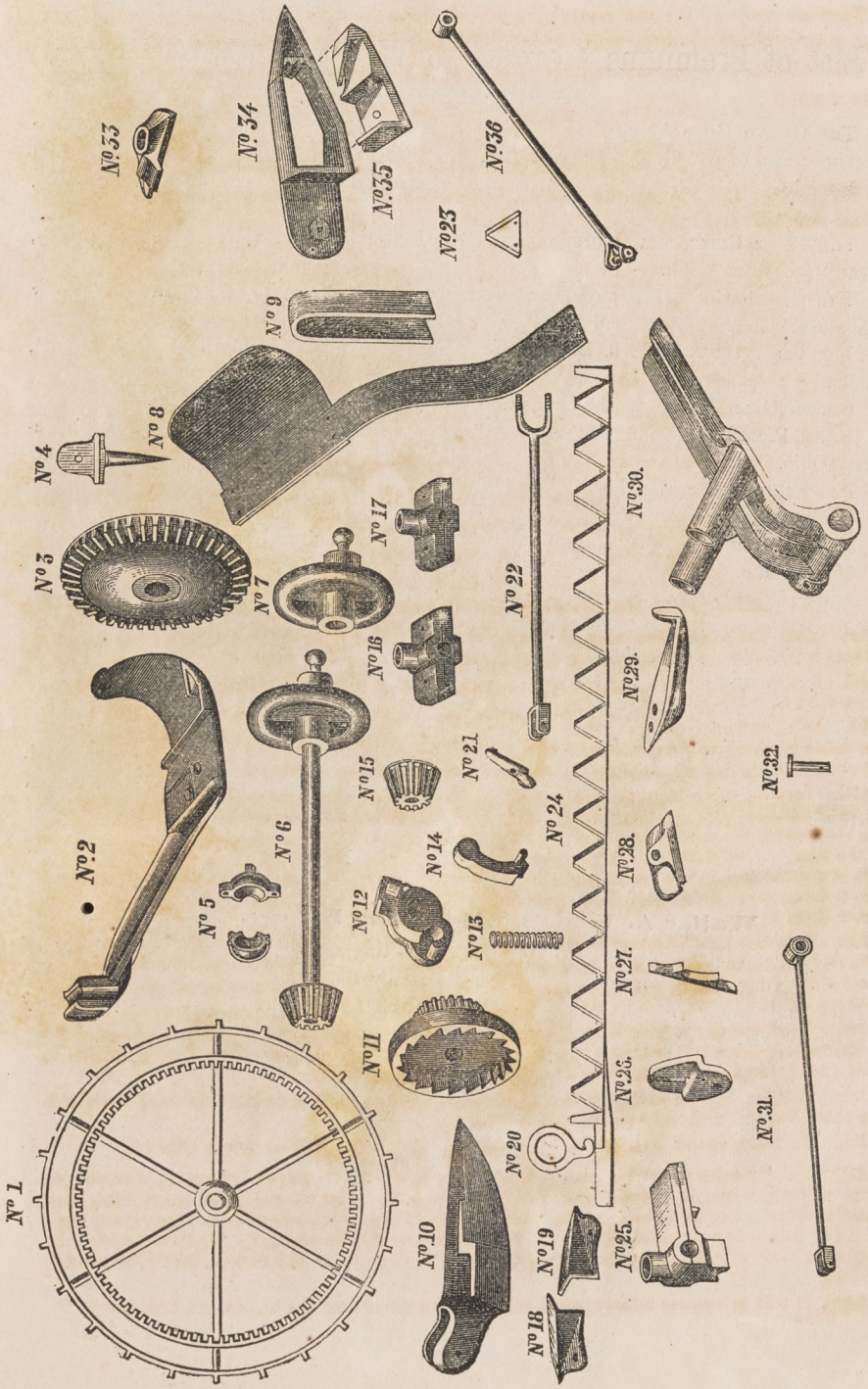
7th. Bolt the handle to the track-clearer-board, then attach it to the outside of the dividing-shoe [No. 10] with the straight side down.

8th. To throw out of gear, hitch the hooks [No. 20] to the pins on pawls [No. 14.]

☞ For the sake of convenience in oiling and tightening the nuts (which must be attended to with vigilance, if farmers wish their machines to be durable and work easily,) the seat, with standards, can be lifted from the sockets into which the front end of the standards rest; by doing this, every nut and oil hole about the Machine is fully exposed. No Mowing Machine will work well or last long, unless the oiling and tightening of the nuts is faithfully attended to.

☞ It will be useless following the above directions unless the knives are kept sharp.

FIG. 71. **Diagram of the Iron and Steel Parts of the Machine.**



List of Premiums awarded to Walter A. Wood's Mower,

During the Season of 1860.

The Grand Gold Medal of Honor, as the best Mowing Machine, either native or foreign; also the Gold Medal and One Thousand Francs, as the best foreign Machine; and a Special Gold Medal at the Great French National Trial, at Vincennes, near Paris, June, 1860.

The First Prize Silver Medal and Two Hundred Francs, at the Trial at Trappes, near Paris, June, 1860.

The Grand Gold Medal of Honor, as the most useful farm implement, at the Gastrow (Meklenburgh) Exhibition and Trial, June, 1860.

The First Prize of £10, by the Yorkshire (England) Agricultural Society, August, 1860.

Grand Gold Medal at the Greifswald Exhibition (Germany,) July, 1860.

First Premium Silver Medal, by the United States Agricultural Society, at Cincinnati, Ohio.

First Premium at the New Jersey State Fair.

First Premium at the Vermont State Fair.

First Premium and Diploma, by the Iowa State Agricultural Society.

First Premium, by the Berks County (Pa.) Agricultural Society.

First Premium, by the Berkshire County (Massachusetts) Agricultural Society.

First Premium, by Merrimac County, N. H.

First Premium, by Belmont County, Ohio.

First Premium, by Harrison County, Ohio.

First Premium, by Kennebec County Agricultural Society, Maine.

First Premium, by the Massachusetts Charitable Mechanic Association, at Boston.

First Prize, by the Royal Agricultural Society of England, at their Quadrennial Trial, at Leeds, in July, 1861, in competition with the leading Machines of England and United States.

Walter A. Wood's Self-Raking Reaper. Fig. 72.

A splendid Machine, warranted capable of cutting and delivering Twenty Acres of Grain per day, doing the work better than is usually done by hand rakers, and with less draft to the team. The Mower cuts a fifty-four inch swath, and is warranted equal to any in the market.

FIG. 72. **Walter A. Wood's Self-Raking Reaper.**

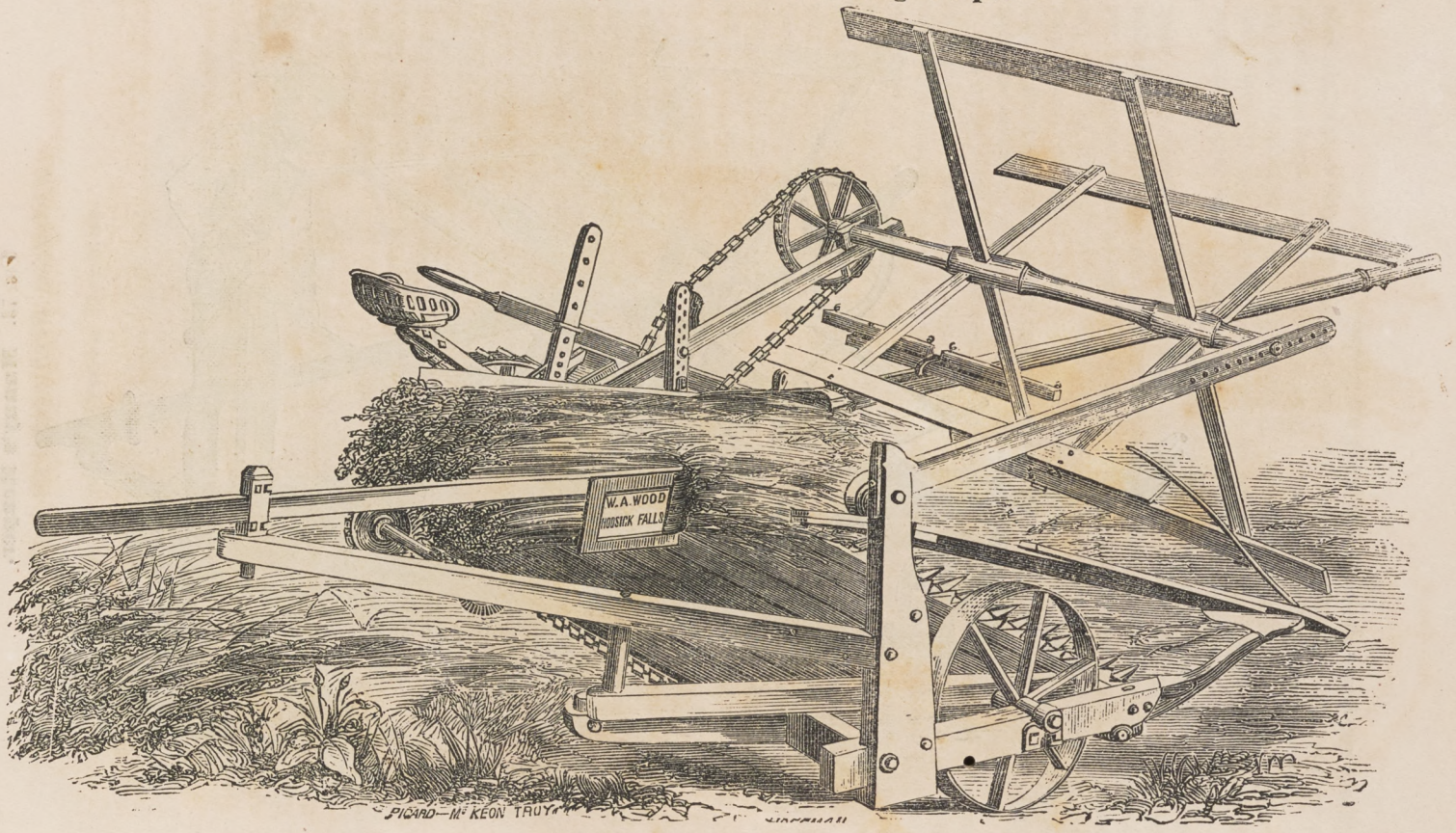


FIG. 73. **Manny's Reaper.**

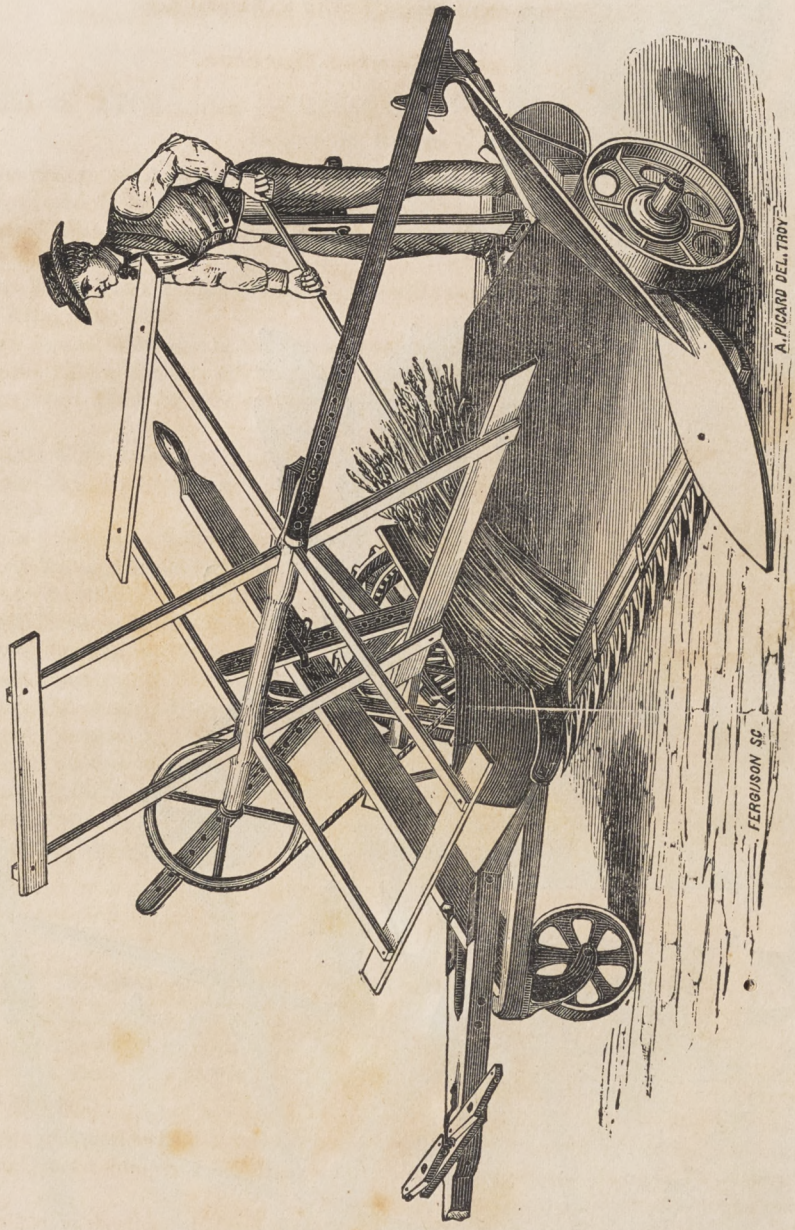


FIG. 301. **Union Mowing Machine.**

The Union Mower has two drive wheels, which enables it to turn to the right or left without clogging or stopping the motion of the knives. A foot lever or pedal is placed near the platform, operating on a clutch, by means of which the machine can instantly be thrown out or in gear without stopping the team. The driving shaft is fitted with ratchets, so that in backing no motion is imparted to the knives. The gearing is of a superior character, the shafts running in Babbited boxes. The frame is very compact and strong, being secured by bolts running across the machine. The finger bar is hung in a novel manner, so that both ends conform to the inequalities of the ground, but become instantly rigid when the lever is used to raise it over stones or stumps, or other obstructions. An elevation of the finger bar from twelve to eighteen inches is easily obtained by the driver, on his seat.

When the lever is used to elevate the cutter over an obstruction, the pitman and crank fender is also elevated, thus the machine can pass over or straddle a stone or stump as high as the axle. The height of cut can be adjusted without stopping the machine, thus allowing different portions of the field to be mowed high or low, as circumstances may require. The outside shoe is so constructed as to leave no combing, being two inches and a half wide, and a six inch wheel is attached thereto, which relieves the out end of the bar from dragging on the ground. The guard fingers are only three inches apart, which requires a short, quick stroke, and does better work than with a slow motion.

The guards or fingers on the Union Machine will never break, being made of malleable iron and steel combined. The steel face also secures, in combination with the knife, a perfect shear cut. The finger bar can be instantly folded to the side of the machine, or unfolded, without the operator leaving his seat. There is no binding or wrenching of the scythe shank, which has been a fruitful source of breakage with some machines, as the scythe plays through steel guides, and moves with scarce any friction.

FIG. 302. **THE FARMER.**

FARMER.

This is a new machine, but one destined to make its mark among the very best in use. Its record thus far is a splendid one.

The frame of the machine is of Iron, it has a floating Cutter Bar, and the Draft is in a direct line with the resistance, which makes it the easiest working machine in use, as the trials with all the crack machines this year will show.

FIG. 303. **Whitcomb's Metallic Spring-Tooth Horse Hay Rake.**

This Rake is mounted on wheels, thereby obviating the objections which have been raised against all spring-tooth rakes where the whole weight of the rake rests on the teeth. It has a spring seat for the operator; has metallic spring teeth which pass lightly over the ground, gathering all the hay, but without scraping up the dirt and stubble, as is the case with rakes without wheels, where the whole weight rests on the teeth. The pliability of the teeth is such that stones or other obstructions, to the height of 14 inches, can be raked over without leaving the hay or injury to the rake. It is well adapted to the roughest meadows, where its greatest excellence will be appreciated. It is also adapted to gleaning grain-fields, which can be done by adjusting the teeth just above the surface of the ground.

California Farmers,

We are prepared to furnish you with the most approved modern machines, suited to the work you wish performed, and among the most noteworthy are the following:

MOWERS. Walter A. Wood's well known but recently improved PRIZE MOWER has been used for the past three years throughout the United States, in Great Britain, and on the Continent, more extensively than any other Mower, and has given universal satisfaction. Wherever it has been entered for competition at public trials and exhibitions, its superiority has been acknowledged, and the long list of prizes it has taken, (some of which may be seen on the page of this Catalogue opposite Fig 72,) justly entitle it to be called the PRIZE MOWER. In addition to former prizes, it has received this season, First prize awarded by the York county (England) Agricultural Society, July, 1862. Also first prize at Preston, Lincoln county, Eng., Aug. 1862.

REAPERS. *At the greatest trial ever held in the United States*, by the Livingston County Agricultural Society, Genesee, N. Y. 1862, there were twenty-one two-horse and three one-horse machines entered for Mowing, and eleven two-horse and one one-horse machines entered for Reaping. This display of Mowers and Reapers is without a parallel in this country, if not in the world.

FIRST PREMIUM, BEST REAPER, WOOD'S SELF RAKER.

At the trial of Reapers and Mowers of the Illinois State Agricultural Society, held at Dixon, Illinois, July 22 to 26th, 1862, in competition with nearly all the leading machines in the country,

FIRST PREMIUM AND DIPLOMA, WOOD'S SELF RAKER.

Halfmoon Bay, Santa Clara Co., Cal., August 9, 1862.

Messrs. TREADWELL & Co., San Francisco, Cal.:

Gents—I have finished my harvest with the "Wood Self-Rake Reaper," purchased of you, made by Walter A. Wood of Hoosick Falls, N. Y. The machine has preformed to my entire satisfaction. I have cut this season over SIX HUNDRED ACRES with the machine, without one shilling expense for repairs. No other machine can be sold in this section for the next harvest. Yours, MICHAEL WOLFE.

Sonoma, Sonoma Co., California, Aug. 18, 1862.

Messrs. TREADWELL & Co., San Francisco, Cal.:

Gents—Herewith I send you draft to pay for the "Wood Self-Rake Reaper," ordered of you. When I received the machine, many of my neighbors were disposed to discourage me in attempting to use a new style of reaper, and were prepared to witness a failure, but to their surprise and my gratification I can recommend it as the best Reaper in use, either hand or self-rake. This machine has already cut THREE HUNDRED AND FIFTY ACRES this harvest, without any expense for repairs, and now in good order. You may safely calculate upon a large sale of the "Wood Self-Rake Reapers" in the Sonoma valley next year. Truly yours, J. SARGENT.

This machine, warranted capable of cutting and delivering twenty acres of grain per day, is particularly suited to the want of large farmers who wish to gather their grain in the straw. But for those who wish to gather their grain without the straw, the *Header, Farmer's Friend, Improved*, meets that want in full. This machine, made this season by W. A. Wood, under the personal superintendence of Mr. Samuel L. Palmer of San Francisco, we can recommend as the most perfect Header ever brought to this market. For small farmmers we have a variety of machines, as may be seen by the catalogue, such as M'Cormick's and Manny's combined, and other well known machines, to which we call the attention of purchasers.

FIG. 74. **Burt, Wright & Co.'s Compensating Horse Power.**

A valuable improvement has been made in this Power, which admits of several changes, increasing or diminishing the speed to adapt it for threshing grain, ginning cotton, sawing wood, grinding feed, and in fact for all purposes to which horse power can be applied, and without additional expense for gearing, &c.

The advantages of the arrangements are numerous, and plainly seen—one of which is removing all the gearing and wearing parts to the outside of the power, where they are free from dust and dirt, &c., and where they may be boxed up, requiring little time or oil to keep them in the best possible order.

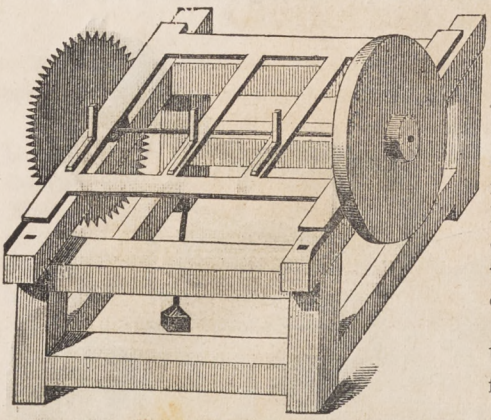
The arrangement for tightening the endless platform by means of a joint bolt connecting with the bearings of the reel shaft, is new, and is a very simple and effectual mode of attaining this object, as it may be instantly done by a common wrench, without stopping the machine. The platform is considerably longer than usual,—avoiding the liability of large or unsteady horses stepping over or off at either end.

The band wheel may be attached to either side of the machine, at the pleasure of the operator, and at more or less distance from the Power, as the circumstances may require.

From the Report of the Mass. State Agricultural Society.

"The single horse-power presented by Burt, Wright & Co., appeared to your Committee superior to any other examined. It runs with a more uniform and even motion, avoiding the jerking motion so common in this class of machines, and so wearing to the horse. The iron rail upon which the rollers traverse, describes the figure of an ellipse. By a slight deviation from the elliptic form, near the ends of the ellipse, the jerking motion is obviated. The gudgeons upon which the rollers play, are furnished with a collar of chilled iron, which prevents, in a great measure, the friction, and consequently the wear."

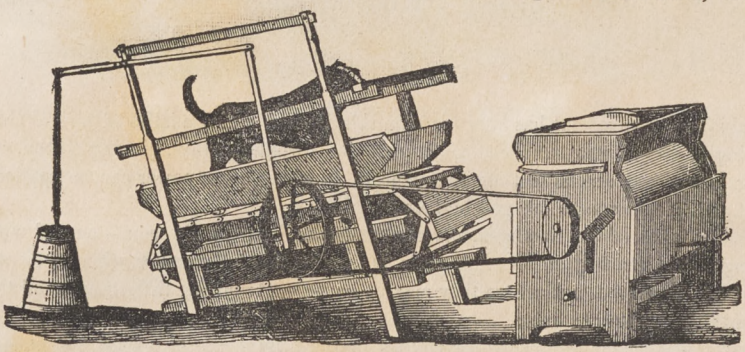
FIG. 75. **Saw Mill.**



This mill is made strong with joint bolts, patent metallic boxes, large and long shaft and heavy fly wheel, and may be used with the Single or Double Horse Power. For Single Power, a 22 inch saw is used; for a Double Power, a 24 inch saw; and with the One Horse Power and two men, from ten to fifteen cords of hard wood may be cut twice in two per day, or as much soft wood as can be handled.

The same mill, by changing saws, can be used for slitting boards and planks for fencing, &c.

FIG. 76. **Dog Power, for Churning, Driving Grindstone, &c.**



The above cut illustrates our most approved Dog Power. It is a simple endless platform, formed upon two India rubber straps, with strips of light wood firmly riveted to it. This endless platform is supported by a drum about 12 inches in diameter at each end, and the whole so arranged that it can be elevated to any angle required by the weight of the dog, or work to be done by it.

It is equally adapted for a sheep, which is sometimes employed instead of a dog. The cut represents it producing both the vertical and rotary motion.

I. T. Grant & Co.'s Patent Fan Mill. FIG. 77.

This Mill is very effective for cleaning every kind of grain, grass seed, &c., which it does most perfectly at one operation. There are five sizes, made of the best materials and in the most substantial manner. Several sieves accompany each mill, with printed directions (permanently attached) for placing the sieves, slides, &c., to clean the different kinds.

The following statement is from the inventors.

"Our Fan-Mills have taken the first premiums at the New York State Agricultural Fairs, at the State Fairs in Pennsylvania and Maryland, at the Fairs of the Mechanics' Institute held in the city of New York, and also at a large number of county Fairs. They received the highest consideration at the great National Fair held at the city of Washington. They have uniformly and in all cases taken the premium wherever presented for com-

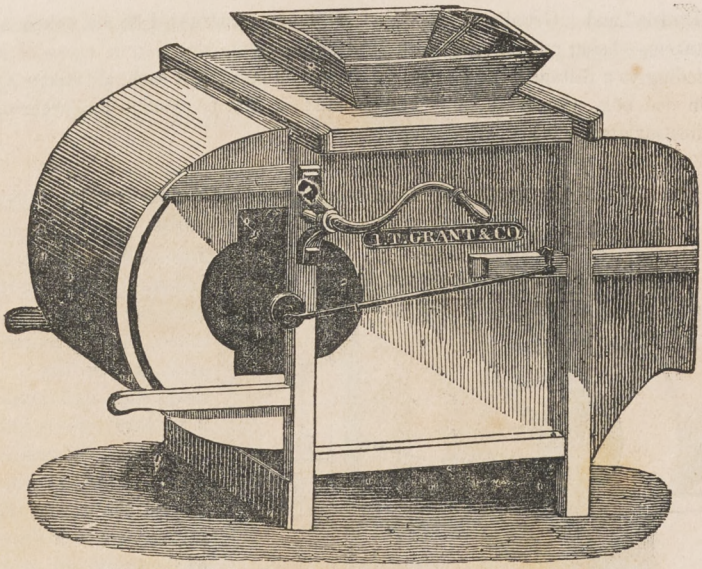
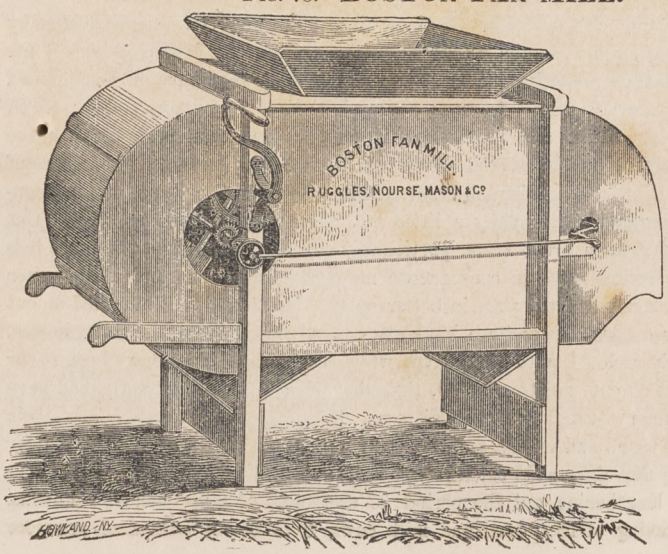


FIG. 77. I. T. GRANT & CO.'S PATENT FAN MILL.

petition. We have had frequent trials of them against time, and find no difficulty in chaffing and screening one bushel of wheat per minute, (with the large sizes,) taking out all the chess, cockle, and smut at the same time, being the only mills that clean wheat at one operation, known to the inventors. They will also clean all other kinds of grain and seed at once running through, (as given by the directions.) If necessary we could procure certificates from many gentlemen, stating that they have saved enough timothy seed in one season, while cleaning their wheat, to pay for the mill."

FIG. 78. **BOSTON FAN MILL.**

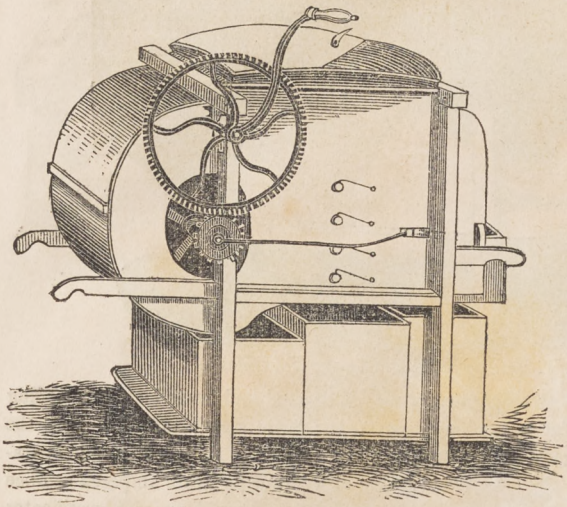


This is a cheap mill, light and portable, but strong and durable, and works with efficiency, cleaning grain and small seeds with much dispatch at a single operation. The small sizes are more particularly adapted to the wants of farmers with but a limited amount of land. Four sizes of this mill are made.

The "Boston" and "Grant's Patent" Fan Mills are constructed to be taken apart for transportation,—being put together with joint bolts and screws.

For sending to a distance, three mills, measuring 52 cubic feet each, are taken apart and packed in one box, measuring only 27 feet, and in that proportion for larger or smaller mills,—thus saving much in cost of freight.

FIG. 79. **Fan Mill for Coffee, Spices, Grass-Seeds, &c.**



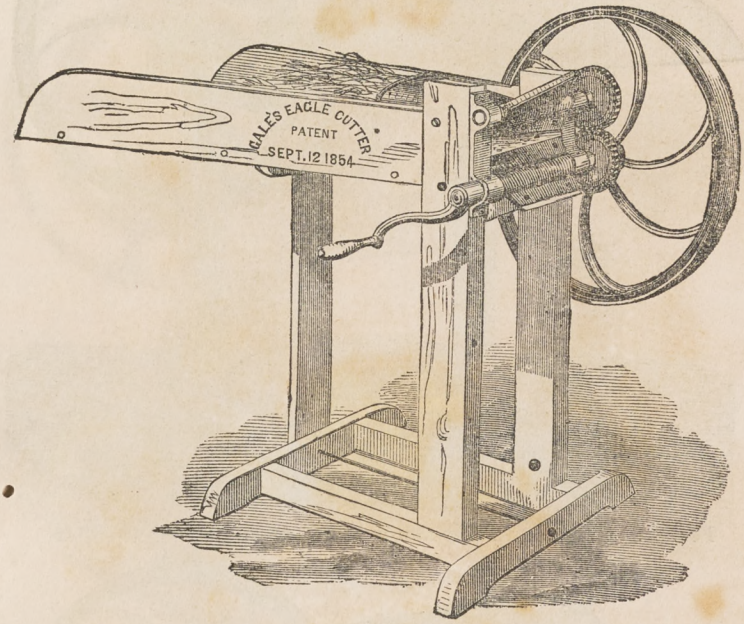
This is a very convenient little mill for the merchant and grocer. It is designed for cleansing coffee, the various spices, rice, grass-seeds, seed-grain, &c., having a variety of sieves slides and boxes to adapt it to these various articles. It is so adjusted, that in operating, more or less wind may be let on the sieves, to exactly suit the wants of the occasion, or the particular article to be winnowed. It occupies very little space, is light and portable, and a perfect Fan Mill for the purposes designed.

HAY, STRAW AND CORN-STALK CUTTERS.

So great is the utility of cutting fodder for stock, that it can only be fully appreciated by those who have had experience in the business; and many persons, having observed the advantages of this mode of preparing fodder, buy a cutter when they have but one animal, a horse or cow for instance, to feed. A great saving is realized in cutting fodder; for in most cases there is in hay, straw, and particularly in coarse forage, some parts which, not so palatable as others, are liable to be wasted or rejected, though they contain a good share of nutriment; and by cutting, and mixing all kinds, adding a little meal or bran, and moistening with water, with perhaps occasionally a little salt, the whole is eaten up clean. Cut forage is better than that in a crude state, particularly for animals of labor, because it is sooner eaten, and the animals have in consequence more time for rest or rumination, or are sooner ready for labor again. Horses are in better spirits, health and condition, fed on cut feed, than on that in a crude state, and are kept at greatly reduced expense. Some horses, that have been severely afflicted with the heaves while fed on dry fodder, have been so far relieved by being kept on cut, moistened food, that they have labored constantly, and have been regarded as quite recovered from the disease. In some cases animals fail in their teeth, while otherwise sound and strong, and for many years would do good service, if their food was prepared so that they could eat it in due time, and without difficulty. The fodder cutter is a means of lengthening out the period of usefulness of many valuable animals. Irrespective of any saving of hay, oxen and milk cows, if to be fed with meal, are more

benefited by receiving it with moistened cut hay, than when the meal is given them by itself, in a dry state, because it is more entirely assimilated, and has much less tendency to scour them.

FIG. 80. **Gale's Patent Eagle Cutter.**



Gale's Eagle Cutter is now extensively used, and gives general satisfaction. It is a strong machine, and so simple in all its parts that any person of common ingenuity can put the knives or any other part in order. It feeds itself rapidly without clogging, is easily operated, and adapted to the cutting of all sorts of fodder, whether straight or tangled, dry or green. This Cutter is made of five sizes,—the larger ones adapted to hand or horse power, as may be desired.

Cylindrical Hay and Straw Cutter.—Straight Knives. FIG. 81.

The proprietors make many sizes of Cylinder Hay Cutters, some with straight, and others with spiral or crooked knives,—in either case the knives being set in the circumference of a cylinder or arbor, and cutting against a hide roller. Fig. 81, on next page, represents the Cylindrical Cutter with straight knives.

Cylindrical Hay and Straw Cutter.—Spiral Knives. FIG. 82.

Fig. 82 represents the Cylindrical Cutter with spiral or crooked knives, which by some farmers, and in some sections, are preferred. They are made to correspond with those having straight knives, in Nos., sizes and prices, up to No. 11. The various kinds and sizes of these Cutters, are so put together, with joint bolts and screws, as to be taken apart and boxed for transportation, and are readily put together again.

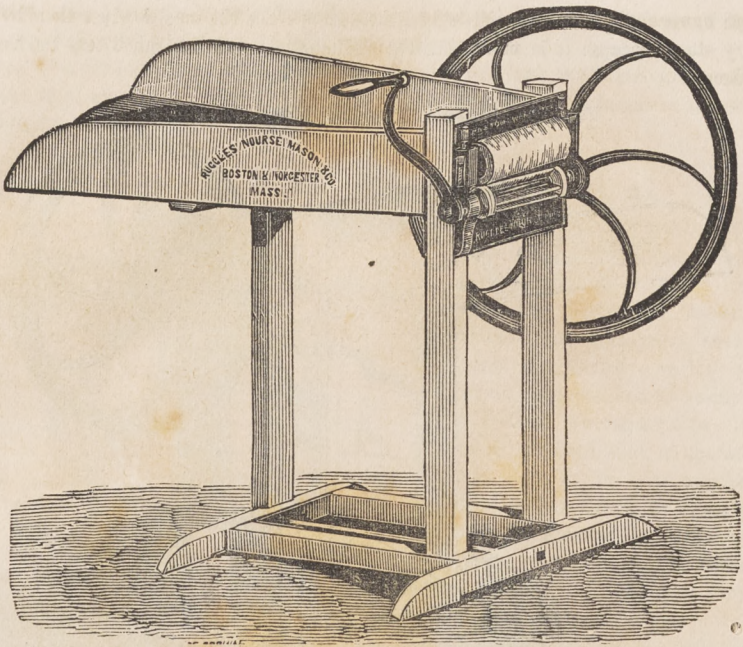


FIG. 81. CYLINDRICAL HAY AND STRAW CUTTER.—STRAIGHT KNIVES.

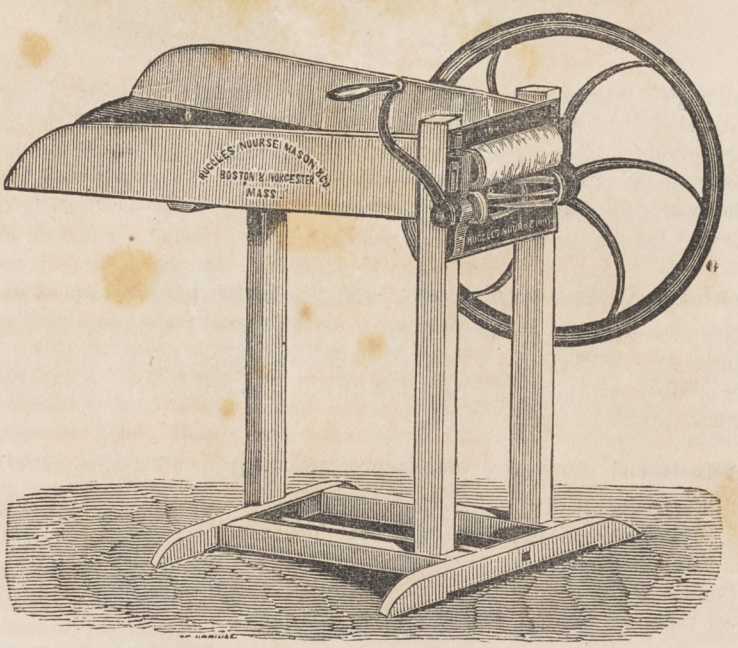
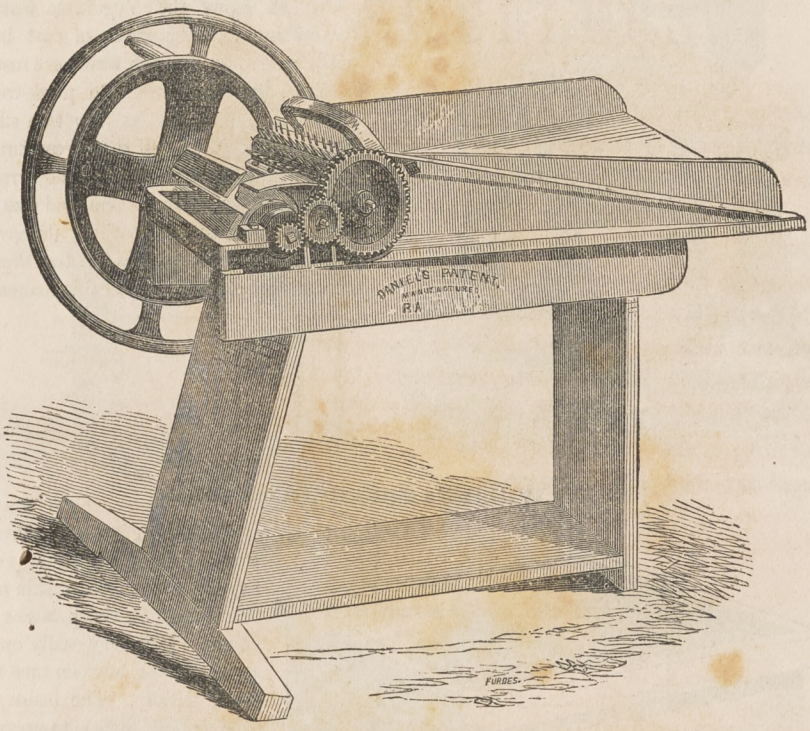


FIG. 82. CYLINDRICAL HAY AND STRAW CUTTER—SPIRAL KNIVES.

FIG. 83. **Daniels' Patent Corn-Stalk, Sugar Cane, Hay, and Fodder Cutters.**



No. 1 is designed for hand power, and is arranged to cut one inch, or half an inch, as desired, by change of gears.

No. 2 is designed for horse power, and is arranged to cut either half an inch, one inch, or one and a half inches, as desired, by change of gears, and is capable, when propelled by a horse, and properly tended, of cutting a ton of hay *into inch pieces* in an hour.

Either of the above machines may be used by hand or horse power, and are in very general use by large feeders in New York city, and other places where dispatch is necessary. They are self-feeders and self-sharpeners.

FIG. 84. **Vegetable Cutter.**

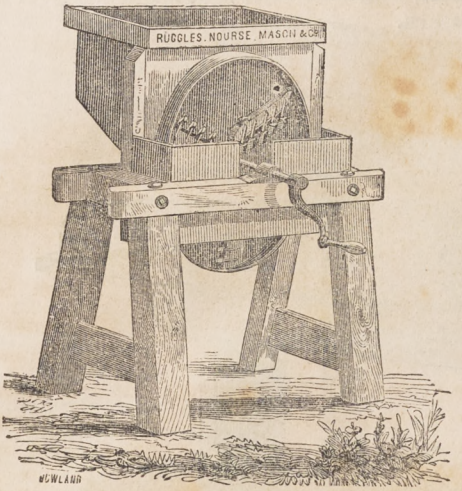
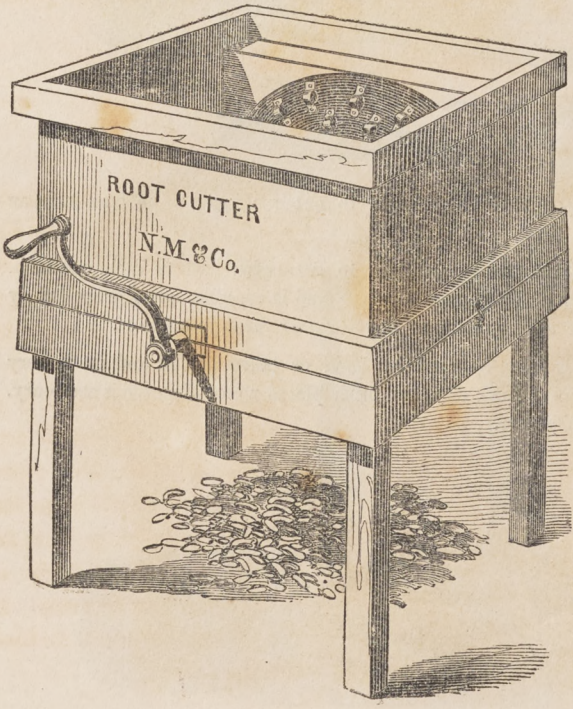


Fig. 84 shows the Vegetable Cutter. The cutting wheel is made of cast iron, faced on one side, through which are inserted three knives similar to plane-irons. These cut the vegetables into thin slices with great rapidity, and then cross knives operate to cut and break them into irregular pieces of convenient form and size for cattle or sheep to eat, without danger of choking. This machine is put together in the most permanent and durable manner.

FIG. 85. **Willard's Patent Root Cutter.**



This Cutter is a recent invention. It cuts vegetables very rapidly, and in slices thin and fine enough for sheep, lambs, or calves. It is very easily operated, so that a boy can turn the crank rapidly. The inside arrangement is such as to prevent all liability of clogging the cutter while working it, and the knives are easily repaired. The vegetables, after being passed through the Cutter, may be mixed with straw, coarse hay, or other cheap forage which one would like to dispose of economically, and the mixture, after lying a little time, so that the forage may become impregnated with the juices and scent of the sliced roots, will be greedily and wholly consumed by the stock. Pumpkins are easily cut with this machine, so as to be conveniently and quickly cooked for swine.

CORN SHELLERS.

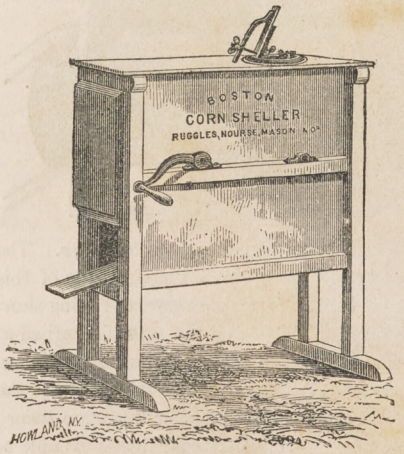


FIG. 86. YANKEE AND BOSTON SHELLER.

The "Yankee," "Boston," "Southern" and "Western" Corn Shellers, manufactured by the proprietors, are so widely and favorably known, as hardly to need comment.

Fig. 86 represents both the "Yankee" and "Boston" Shellers, which are different only in size, the former being the smallest, and adapted to the smaller corn grown in the New England States, while the latter is a size larger, and adapted to the larger corn of the Northern and Western States. It is made single or double, to shell one or two ears at the same time.

FIG. 87. **Southern Corn Sheller.**

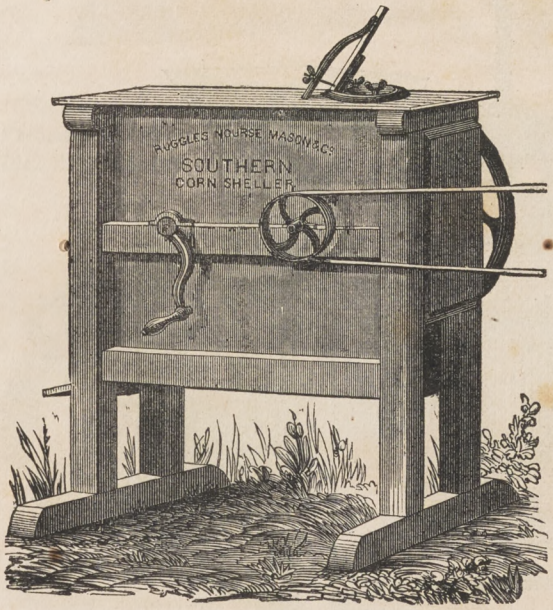
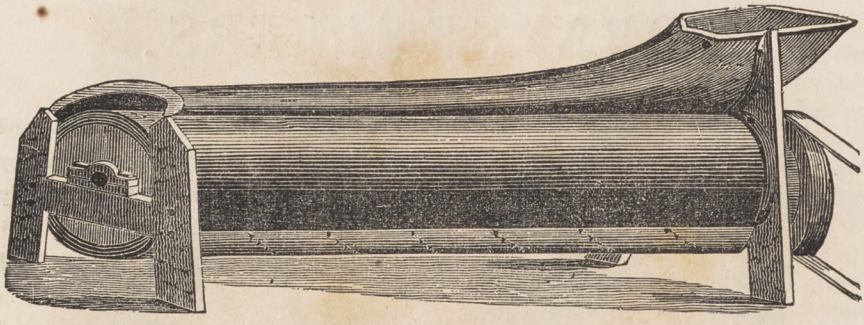


Fig. 87 represents the "Southern" Sheller, with a pulley and extra balance wheel on the outside, which is also made single and double. It is operated by hand or horse power.

The "Western" Sheller is of the same form and general construction as those here represented, but is of still larger size and stronger make, to fit it for shelling the largest kinds of Western and Southern corn. It is made single or double, for hand or horse power.

FIG. 88. **Smith's Corn Sheller and Separator.**



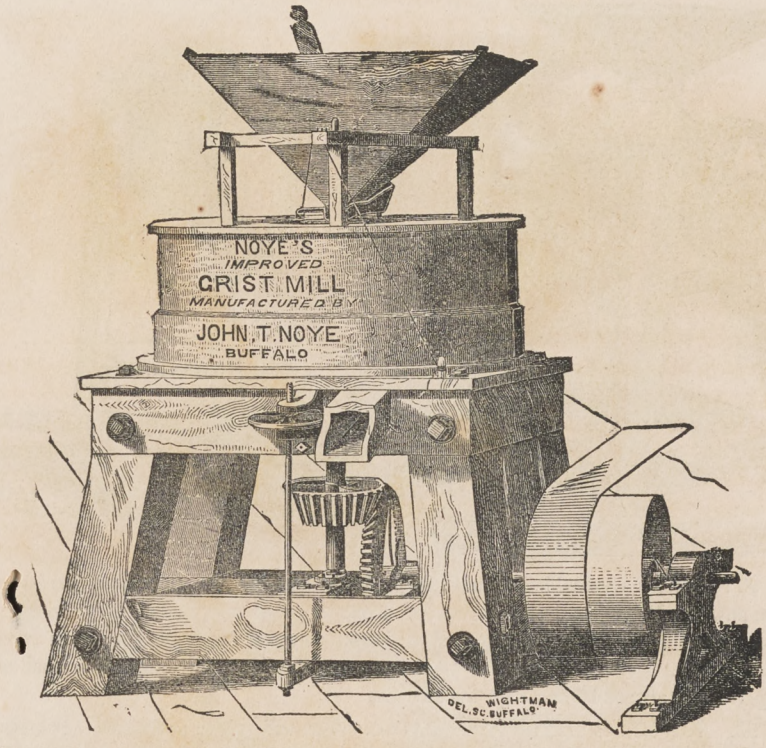
This machine consists of a horizontal toothed cylinder, and is made of several sizes. The ears of corn, in the operation, are confined to a part of the upper and rising side of this cylinder, by means of a concave extending the whole length of the machine, and being shoveled or let into the machine at one end, they are driven through, and the cobs discharged at the opposite end, while the grain falls below, being admitted on either side of the cylinder.

The operation is governed by elevating or depressing the discharge end, which causes the machine to discharge the cobs fast or slow, and of course operates more or less upon them; thus securing to the operator the power of finishing his work. This machine is capable of shelling two hundred bushels of ears per hour.

FIG. 89. **Kindleberger's Buckeye Cider Mill.**

A very effective Cider Mill, compact, light and portable, easily operated, and of low price.

FIG. 90. **Noye's Improved Flouring and Grist Mill.**



We are Agents for the Pacific coast for John T. Noye's Patent Improved Centrifugal-Feeding Flouring and Grist Mills. They are double or single geared, with the best French Burr Stones, and of seven sizes; and are the best Mills in use.

FIG. 91. **Old Dutch Anker Bolting Cloths.**

Single Anker, Extra Heavy Anker, and Double Extra Heavy Anker.

Our long experience in the sale of Bolting Cloths enables us to say, that, for durability, evenness of texture, and freedom from the faults which attend inferior cloths, the Cloths we sell have no equal. They are greatly superior to most cloths found in the market.

Our Double Extra Cloths are being used in all of the Mills in this State and Oregon.

Cloths will be made to order on the shortest notice, and in a superior manner.
We have on hand the following Numbers: 00, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.

FIG. 92. **Hand and Horse Grain Mill.**

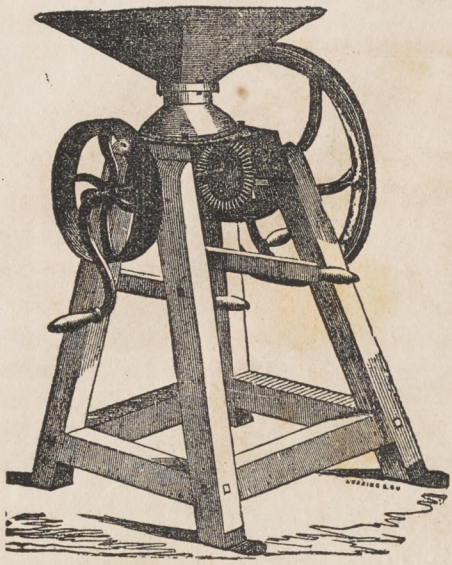


FIG. 93. **Hand Grain Mill.**

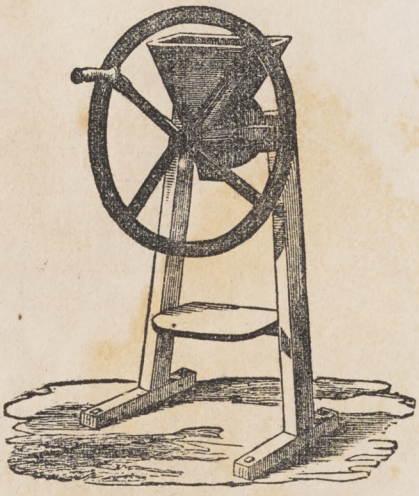


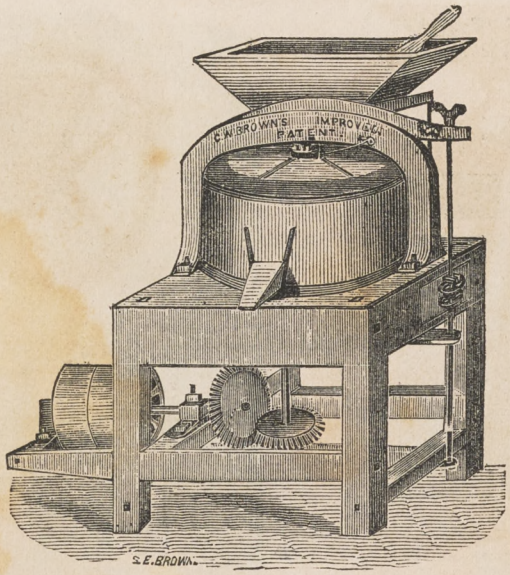
Fig. 92 represents a valuable iron mill, very efficient and durable. It runs either by hand or horse power. With the latter it can be made to grind four bushels of grain fine per hour, and a greater quantity if coarse. It is simple, and not liable to get out of repair; and when the plates or grinding surfaces are worn out, they can be replaced at a small cost. Extra plates can always be had with the machine.

Fig. 93. This Mill is used for grinding grain, coffee, and spices, as desired. It is usually operated by hand, though it can be constructed to run by other power. It grinds from one to two bushels per hour. The plates or grinding surfaces can be replaced when worn, as in the foregoing machine. It is a desirable mill for public or boarding houses.

FIG. 94. **Coffee Mill.**

This is properly a coffee or spice-mill, but will grind grain of any kind. It is sold without a frame, and is so constructed as to be fastened to a post or board in any part of the house; or it can be attached to a simple frame. It grinds from eight to sixteen quarts per hour, depending mainly on the speed at which it is run. It may be had with or without extra plates.

FIG. 95. **Brown's Improved Patent Grist Mill.**



The above Mills, of seven different sizes, are furnished to order.

FIG. 96. **Harris & Son's Patent Smut Machine and Fan.**

This Machine, invented to hull and pearl rice, coffee, &c., as also for smutting, polishing wheat and other grain, has proved itself valuable and popular, being now in successful operation at the Galigo Mills, Richmond, Va.; Croton Mills, New York; Revere Mills, Rochester; Etowah Mills, Ga., and over one hundred others.

The grain passes into the Machine, at the center of the top bedstone around the spindle, thence by the centrifugal force is thrown out of the convex surface to the periphery of the centre or running stone, passes down between it and the case, and so out by the spout near the centre of the lower bed-stone—a distance, on the 30-inch machine, of over eight feet. This machine cleans from 10 to 150 bushels per hour, according to size. It is readily set to suit all kinds of grain. The following are among the advantages of this machine: being constructed of stones, it is very durable; the stones can be dressed by any miller, and once a season is sufficient. The stones can be set or changed, similar to a mill-stone, to suit any kind or quality of grain: a powerful fan is attached, such as no other machines possess. Various sizes supplied to order.

FIG. 97. SECTION OF HARRIS & SON'S PATENT SMUT MACHINE.

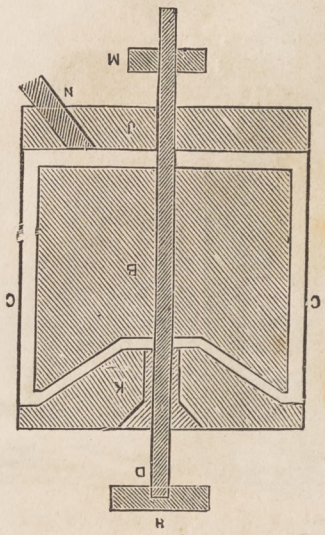


FIG. 97½. **Montgomery's Smut Mill.**

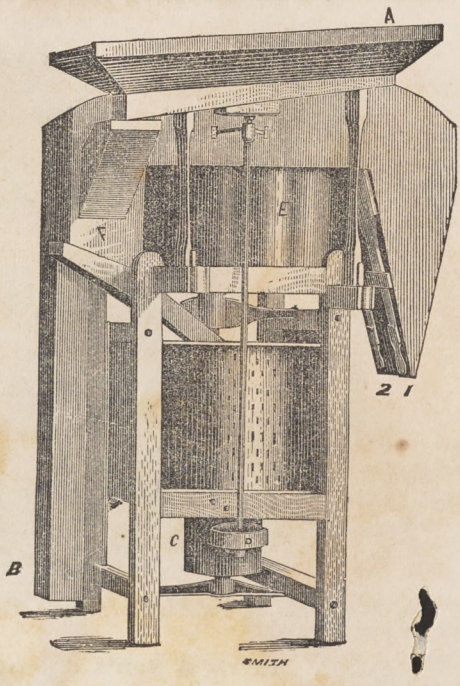


FIG. 98. **Ingersol's Hand Hay Press.**

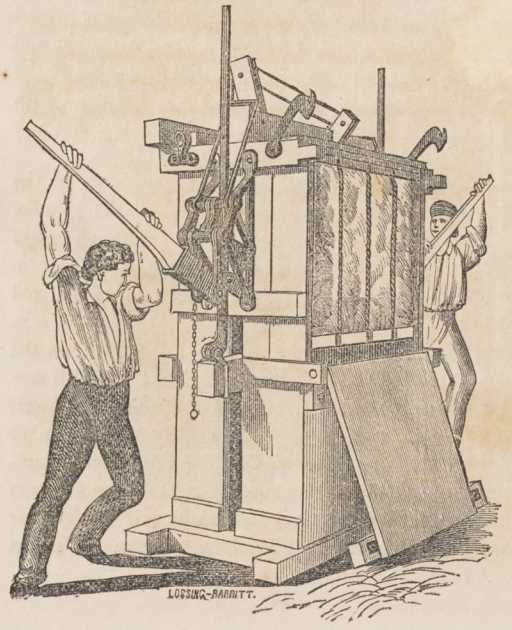


FIG. 99. **Wine Press.**

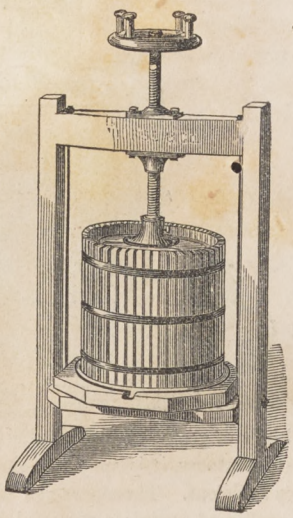
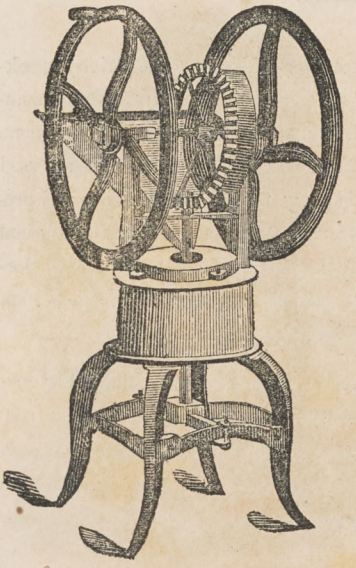


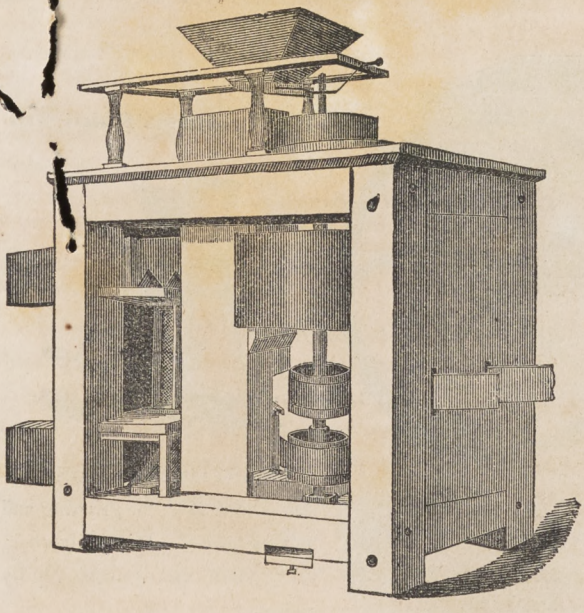
FIG. 100. **Rice and Coffee Huller.**



No. 1 of this machine is intended to operate by hand, and will hull 30 to 50 lbs. of rice per hour, and a much larger quantity of coffee.

Nos. 2 and 3 are for horse or steam power, and will hull 50 to 100 lbs. respectively per hour.

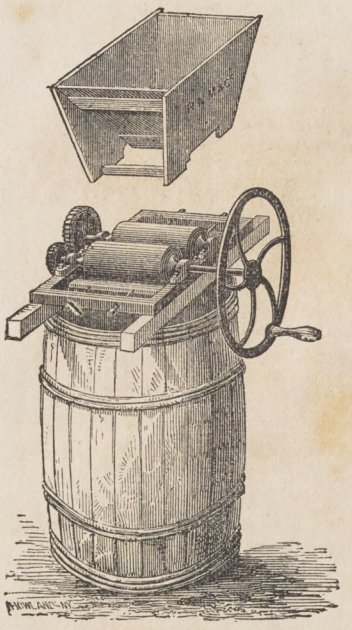
FIG. 101. **Rice Huller and Polisher.**



This machine can be worked with four horse power. It hulls the rice perfectly, and afterwards polishes and thoroughly cleans it, at the rate of 200 lbs. per hour.

Both this machine and the huller above are constructed with stones and India-rubber attachments, with all the recent improvements.

Fig. 102. **Sugar Mills,**



Although these Sugar Mills are not strictly speaking agricultural machines, still the proprietors manufacture and sell many of them to their customers, such as traders in the interior, &c. The mills are used by grocers and country traders, for grinding and preparing sugars for use, when taken from the original packages, by which process the damp and hard portions are crushed, and disintegrated, and made to look light and of uniform appearance.

Five sizes of these mills are made, the smaller ones for placing on a barrel, as represented by Fig. 102, and the larger sizes adjusted to a frame or box, and standing on the floor, as represented by Fig. 103, from which box the sugar is removed by the use of a shovel.

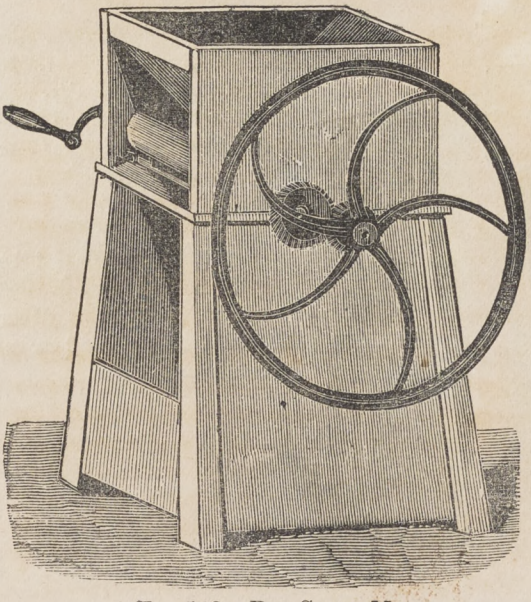


Fig. 103. Box Sugar Mill.

Fig. 104. **Harris' Paint Mill.**

Fig. 104 represents Harris' Patent Paint Mill, for grinding and mixing paints. It is easily worked by hand, and conveniently by power.

FIGS. 105-7. **John H. Gove's Vertical Parallel Cross Lever Hay and Cotton Press.**

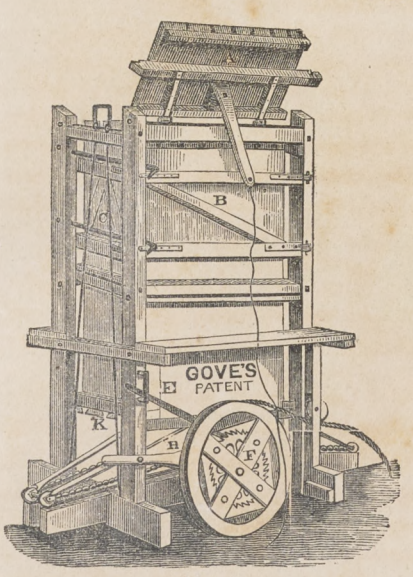


FIG. 1.

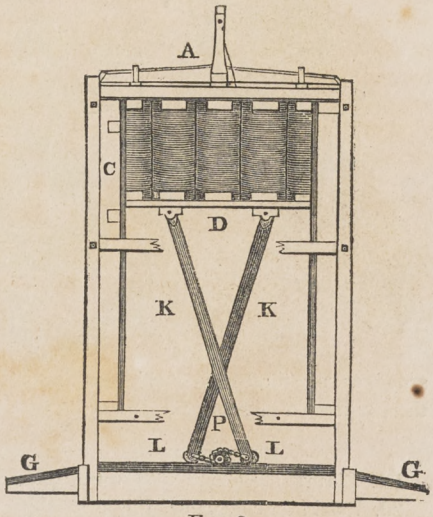


FIG. 3.

The Press is acknowledged by all that I've seen or used it to be the simplest, as well as the most perfect, and quickest mechanical power for pressing Hay, Cotton, or any thing required to be baled. The principle can be readily understood by reference to the above engravings.

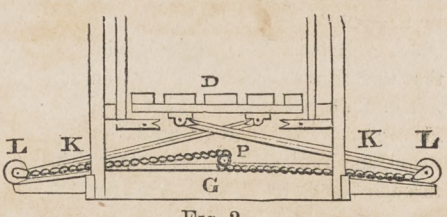


FIG. 2.

Fig. 1 is an external view. A, top door open. B, front door to take bales out. C, end door to release end pressure on bales when ready to take out. F, driving wheel. E, ratchet pawl lever. H, brake lever. K, arms. Fig. 2 shows the position of arms and the follower of the press-box when down. D, the follower. K, the arms. L, flange wheels to arms. G, rails on which wheels run. P, shaft on which chains wind. Fig. 3 shows position of arms when up and bale made.

It is built strong and compact, with a view to make the best portable and stationary Press in use. The sizes vary in proportion to the size and weight of the bale to be made. Height 8 to 13 feet, and can be made of any size required, for any and all materials to be baled, by giving the height and size of box, also size of bale to be made.

This Press, when worked for hay, will with two to four men and one or two horses, according to the size and capacity of Press, turn out from one to one and a half tons of hay in one hour, making bales from 200 to 400 pounds.

TREADWELL & Co. are agents for the Pacific Coast.

Fig. 108. Lapham & Wilson's Air-Pressure Churn.

Patented February 8th, 1859.

The Air-Pressure Churn may be thus understood; — A plain barrel suspended as seen in the engraving, with a moveable head, where the Milk or Cream may be introduced, and the head replaced, which is then secured by means of a cross-bar and thumb-screw, "air tight." By means of a simple compact Air-Pump attached to the Churn, air is *forced* in, until a sufficient pressure is obtained; then the Pump is detached, and the Churn revolved end over end from *five* to *ten* minutes, until the Butter comes, which may be known by the sound, or seen through a round glass, inserted in the bottom of the Churn. The Butter may then be treated in the usual way, or worked in the churn.

Rules to be observed in using the Air-Pressure Churn.

1st. Cleanse the Churn with warm water before using.

2d. Put in the Cream or Milk at a temperature of 62 or 65 deg, which should not occupy more than one-third or one-half the space of the Churn. Then secure the lid "air-tight" by the use of the thumb screw.

3d. Attach the Pump and force in air for one or two minutes, or until the pump indicates that there is a strong resistance to an increased quantity.

4th. Remove the Pump, after turning the faucet to retain the air—then revolve the Churn for five or ten minutes, or until the Butter comes—which is indicated by the change of sound, and by the round glass attached to the end of the Churn—after which let out the air through the Faucet—remove the Buttermilk by using the Strainer attached to the Churn —then wash, salt and work the Butter in the Churn. The second working of the Butter may be performed in a similar manner.

Should the cream be very thick when churned, a small piece of light wood inside will prevent the contents from sticking to the Churn.

N. B. When sweet Milk is churned, it should be done as soon after removing it from the cow as the temperature can be reduced to 63 or 65 degrees.

If the Butter is slow in gathering when Milk alone is churned, draw three-fourths of the Buttermilk through the Faucet, then revolve the Churn and the Butter will gather quickly.

We claim for this churn, 1st,—It churns to the best advantage at a low temperature, not over 62 degrees. 2d,—No dashers being used, the grain of the Butter is perfectly maintained. 3d,—By churning under pressure, a greater amount of oxygen is closely combined with the Cream or Milk. 4th,—It saves time and labor, as any quantity may be churned in the same time, according to circumstances, from 6 to 15 minutes. 5th,—It is simple in construction, durable, and more easily cleaned than any other churn, as no lifting is ever required. 6th,—It is an admirable Butter worker. 7th,—The quantity of Butter produced is greater from a given amount of Cream or Milk than by any other known process.

It is warranted to make more Butter, and of better quality, than any other Churn in use.

TESTIMONIALS.

I have been using one of the Air-Pressure Churns for three months, with entire satisfaction. By its use, I save at least two-thirds of time and labor; I get a better quality of Butter, and a larger quantity from the same amount of Cream. The usual time of churning is from eight to fourteen minutes, and I can cheerfully recommend it as the best churn now in use. It is adapted to large or small dairies—there being no dasher, it works about as easily on a large scale as a small churn. It gathers the butter finely, and it can be worked without removing it from the Churn, thus saving a great amount of labor to the large dairyman. C. H. LOSEE.

Mabbattsville, Dutchess Co., N. Y.

I have used the Air-Pressure Churn all through the past season, and I find that I save at least one-half the time and labor in churning. I was desired to test this churn with the dasher churn as to quantity of butter produced by each. I have been very particular in dividing the cream, to have the quantity, quality and temperature precisely equal, and the result was in favor of the Air-Pressure Churn eight and a half per cent. The butter is equally as good and perhaps superior to that made by the dasher. It is easily kept clean and sweet, is convenient to wash, simple in all its arrangements, and any person of ordinary capacity can use it. I would recommend it as the best churn in use. It is also an excellent butter worker. ANDREW B. HAMMOND.

Chestnut Ridge, Dutchess Co., N. Y.

I have been using one of the Air-Pressure Churns, and am able to say that I have done all the churning myself, and the time required is about eight minutes. The butter is better than by the dasher churn, and its color, flavor and grain is very superior. I consider the "Air Pressure" by far the best churn that I know of. CHARLES HOAG.

Pine Plains, Dutchess Co., N. Y.

All who have used the Air-Pressure Churn, agree in the fact that the amount of butter produced is greater than with either the old style dasher churn, or the more rapid modern churn requiring high temperature; that the grain of the butter is better than in any other churn, all others presenting unequal conditions during the manipulation, while the equilibrated pressure of the atmospheric churn guarantees similar conditions at all times to each particle liberating the butter and causing it to coalesce throughout the mass at almost the same instant of time; and when the milk is removed, the working of the butter may occur in the churn under similar advantage in circumstances. We have every reason to believe the product is more valuable than from any churn now in use.—Working Farmer, April, 1860.

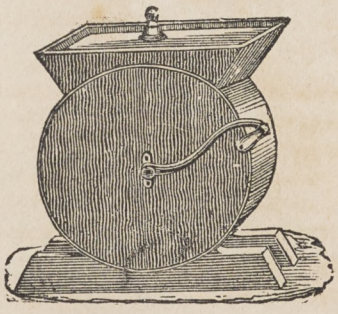
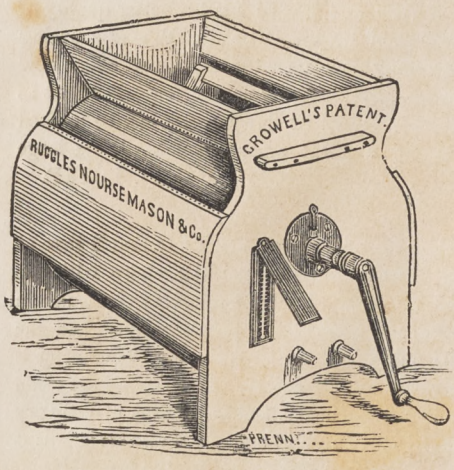


FIG. 109. **Cylinder Churn.**

This is one of the best in use, as it is simple in its construction, and combines all the good qualities of other cylindrical churns, with this additional advantage, that the revolving dasher can be taken out in a moment, any time it is required to be cleansed. This is important after every churning, in order to keep it sweet, and from tainting the cream. It is light and portable, and may be placed upon a bench or a table, and operated by a child. There are 5 sizes, holding from 2 to 20 gallons.

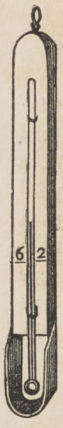
FIG. 110. **Thermometer Churn.**



This Churn is so constructed that the cream or milk is readily brought to the desired temperature without mixing water or other substances, and the temperature certainly and definitely determined, which proves invaluable in the art of making butter.

One improvement consists in the construction of a double bottom, made in the form of a semicircle, of two sheets of zinc, or other metal, placed one above the other, the cream to rest on the uppermost; between the two sheets, is a space or chamber, into which may be introduced cold or warm water, as may be required to increase or diminish the temperature of the cream or milk.

Another improvement is a Thermometer permanently and securely placed in one end of the churn, marked at 62 degrees, and which comes in contact with the milk or cream to indicate its temperature, so that the operator may know and determine with certainty when it is brought to the proper state. If the cream is too warm, the mercury in the Thermometer will rise above the mark of 62 degrees, and cold water should be applied in the chamber described; if too cold, the mercury will fall below the mark, when warm water must be used instead of cold. The cream or milk should be stirred, by turning the crank, while the water is being introduced, to give the contents an equal temperature throughout. When the Thermometer indicates that the cream or milk is of the proper temperature, the water may be drawn out through the tube placed for the purpose, when the churning should be performed by giving the crank about forty revolutions to the minute.

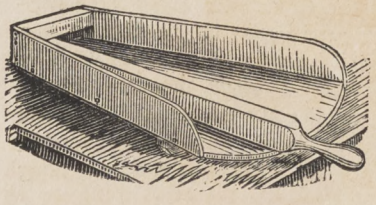


This churn is simple in its construction—is light, portable durable, very easily operated, and readily cleansed. The crank and dash are easily taken out to facilitate cleansing.

Fig. 111. **Thermometer.**

Fig. 111 represents the Thermometer placed in the end of the above-described churn.

FIG. 112. **Lever Butter Worker.**



This cut represents a very simple machine for working butter. It is easily cleansed, and takes but little room. It may be made with square or round fluted lever, as may be required.

There are three sizes, capable of working from 5 to 20 lbs. at each operation.

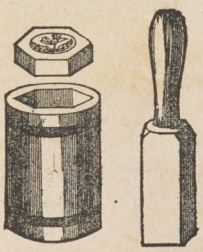
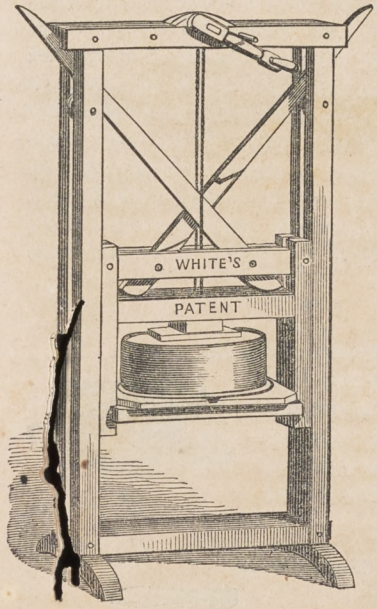


FIG. 113. **Butter Moulds.**

Fig. 113 represents a mould for forming butter into well-shaped lumps when intended for the market, and when full contains either one or two pounds, according to size; or smaller quantities may be prepared very neatly for the table—as each lump is left with a figure stamped on the upper side.

White's Patent Self-acting Cheese Press.

FIG. 114.



This Cheese Press is light and portable, and a great convenience to the dairy-woman. The cheese is placed in the machine, and its own weight presses it—the pressure at first being quite moderate, as it should be, but gradually increasing as the inside frame moves down, until the cheese is perfectly pressed. Light or heavy pressure may be applied to cheese of the same weight, by simply raising or lowering the inside frame by sliding blocks between the two followers,—indeed, the Press may be regulated to any degree of pressure that may be desired. The cheese is not removed until the pressing is completed.

Dash Churn.

FIG. 115.

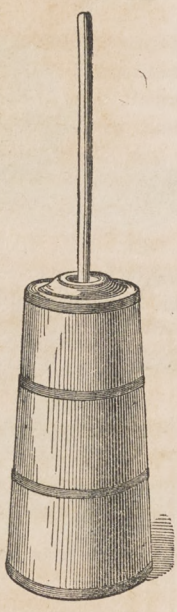
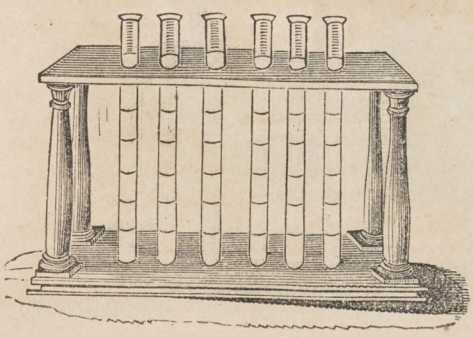


FIG. 116. **Lactometer.**



The only proper instrument for testing the qualities of milk drawn from different cows. It consists of glass tubes placed perpendicularly in a wood frame: these tubes are divided and subdivided by marks into equal spaces; they are filled to equal height, each with the milk of a particular cow, when, after remaining a proper time, the quantity of cream in each is readily seen through the glass, and the exact difference determined by the marks.

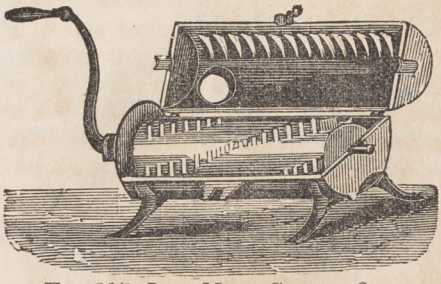


FIG. 117. IRON MEAT CUTTER, OPEN.

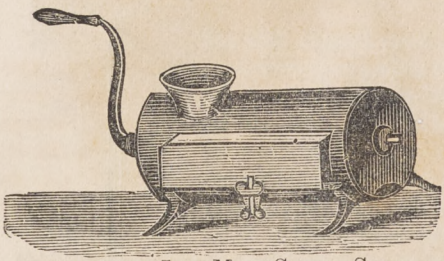


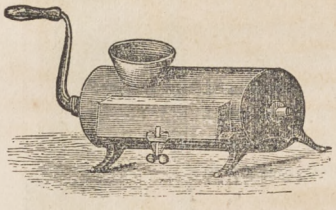
FIG. 118. IRON MEAT CUTTER, SHUT.

FIGS. 117 & 118. **Iron Meat Cutters.**

Figs. 117 and 118 represent the Butcher's Iron Meat Cutter, open and shut. The simplicity of construction and the ease with which every part, subject to wear, may be replaced, serve to recommend this as a cheap and excellent machine. Being made entirely of iron, it is much more durable than those usually made of wood, and much easier kept sweet and clean.

DIRECTIONS FOR USING. Fasten the machine firmly on a level form or bench, by screws, through the feet. Cut the meat into pieces the size of an egg, free from bone, and feed it in the hoppers, at the same time turning the crank, as fast as it will clear. If the meat comes through too coarse, set the slide so as to partly cover the opening where the meat is discharged, and feed slower. If the meat be frozen, or cold and stiff, it may be made pliable by dipping it in warm water. This machine will cut 100 pounds of meat per hour.

FIG. 119.



Figs. 119 and 120 represent two smaller sizes of Iron Meat Cutters, adapted in size and price for family use. They cut and mince the meat equally as well as the larger size, but not so rapidly.

FIG. 120.

FIG. 121. **Double Geared Meat Cutter.**

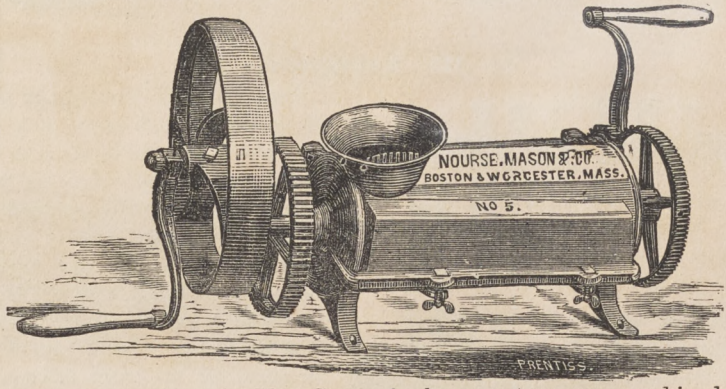


Fig 121 represents a large size Meat Cutter, for horse or steam power, and is adapted to

the wants of Pork Packers and others having large quantities of meat to cut. Driven by horse power, it is capable of cutting from 500 to 700 pounds per hour.

FIG. 122. **No. 4 Meat Cutter, Geared.**

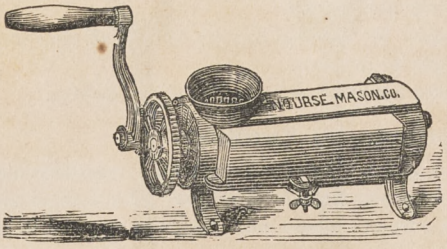


Fig. 122, same size as No. 4, but is arranged with a gear and pinion on the crank-shaft, to enable the operator to turn it more easily and steadily.

FIG. 123. **Sausage Stuffer.**

With this machine, sausages are stuffed with extraordinary despatch and ease. Sausage making establishments cannot, and farmers should not, do without them. There are four sizes, three sizes with one or two tubes. The tubes are made to attach and take off by a screw, and differing in size, fit large and small skins.

New Pattern Sausage Filler. FIG. 124.

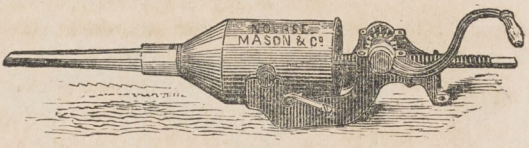
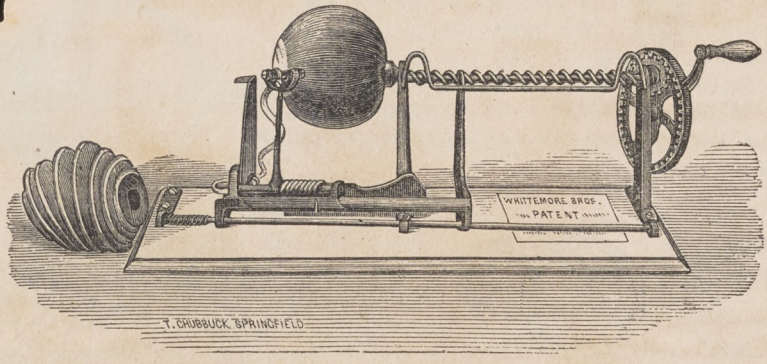


Fig. 124 shows a new pattern sausage filler, of which there are two sizes. No. 1 for butchers doing a small business, also for farmers' and planters' use. No. 2 for the larger establishments. The No. 2 is double geared, and works steadily and with ease, doing rapidly a large amount of work. They all have double tubes, and are adapted to all sizes of cases. The Fillers are of durable material, iron frames, and very compact, occupying but little space, and with the Cutters are well packed and strongly boxed for transportation.

FIG. 125. **Whittemore's Patent Apple Parer, Corer and Slicer.**



This machine very pleasantly and expeditiously pares, cores and slices the apple, all at one operation. It is easily operated and made to produce the exact result desired. The

paring knife is adjustable by set-screws in the knife-head; the slicer is also adjusted to produce the desired work by means of a set-screw at the foot—and the corer is regulated to take out a larger or smaller core, by means of the same set-screw.

For paring peaches, these machines are furnished with a spring fork to enter the peach and surround the stone, and the corer and slicer are omitted.

For paring potatoes, turnips and other roots, the operator has only to take off the corer, and if slicing is not desired, the slicer may also be removed.

These Machines are the perfection of yankee ingenuity, and combine eleven patents.

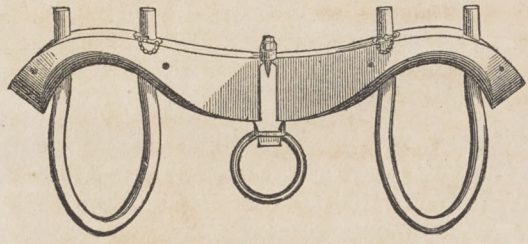
FIG. 126. **Mott's Agricultural Furnaces**

Are admirably adapted to boiling vegetables and food for stock, and are often used for household and other purposes where much water is required to be heated.

They are composed of a double kettle or boiler, connected on the top of a box stove in such a manner that the fire passes between the outer and inner kettles, which causes the water to boil as quickly and with as little fuel as in a boiler set in brick.

There are several sizes, holding from 15 to 120 gallons; they possess the advantage of being used in different places, and are light and portable.

FIG. 127. **Ox Yokes and Bows.**



The proprietors have different kinds and sizes, from several approved makers, and can furnish them with bows and irons complete or either part separately.

Patent Bow Pin. FIG. 128.

FIG. 128 represents a Bow Pin for confining the bow in the ox yoke. The outside circular parts are opened from the centre or body part by a spring, when the latter part is put through a hole in the bow, and the spring closes the circular parts again, clasping the bow on both sides, and preventing all possibility of its dropping out.

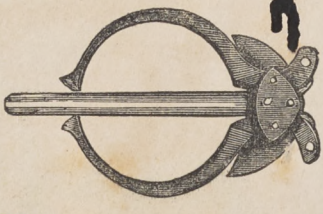


FIG. 129. **Bull Ring.**

Every bull should be rung, after attaining the age of one year. It is easily done by punching the cartilage between the nostrils, and then inserting the ring and screwing it together. With a ring in his nose, the most fractious animal is easily managed. The left-hand figure shows the ring open ready to insert. A screw driver accompanies each ring.

Treadwell & Co., and Ames' Spades and Shovels.

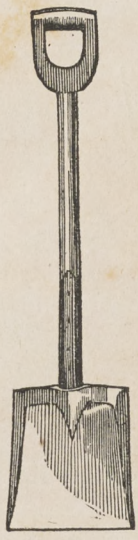


FIG. 130.

FIG. 131.

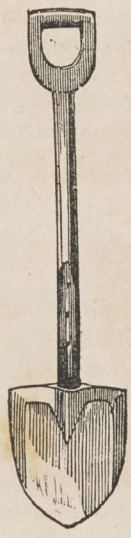


FIG. 132.

FIG. 133.

FIGS. 130, 131 and 132 represent the celebrated cast steel and steel pointed Shovels and Spades, manufactured at the Antrim Works of Treadwell & Co., and by O. Ames & Sons. They are of all sizes, with square and round points, and long and short handles. FIG. 133 represents a Grain Scoop, or Coal Shovel.

FIG. 134. **Post Auger.**

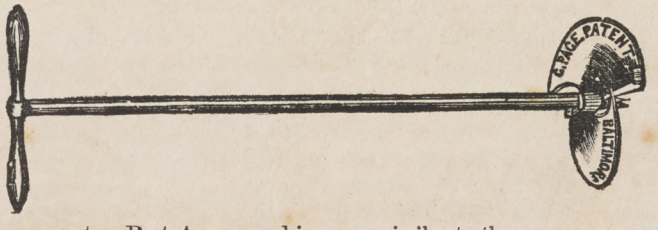
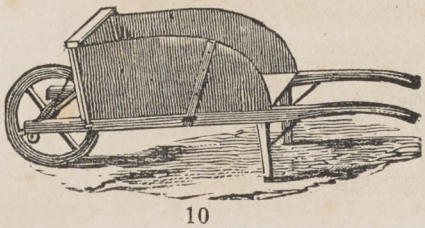


FIG. 134 represents a Post Auger, used in a way similar to the common auger for boring timber, with which post holes are readily made in sand, loam, clay or alluvial soils.

FIGS. 135 & 136. **Wheel and Canal Barrows.**



Several kinds and sizes of Barrows.

HOES.

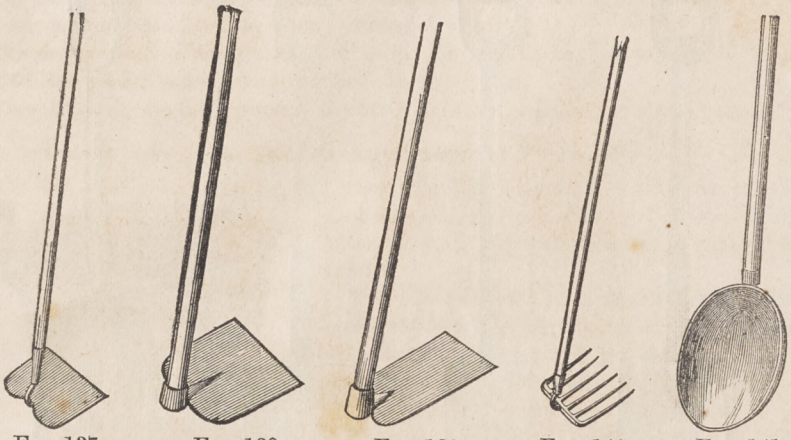


FIG. 137. FIG. 138. FIG. 139. FIG. 140. FIG. 141.

Fig. 137 represents the field Hoe, of which there are many varieties. The most approved are the concave, cast steel kind, plated under the hammer and tempered like a brick trowel.

Fig. 138 represents the Hoe used in the Southern States, and sometimes used in our cities as street Hoes. They are made with an eye, and are very strong.

Fig. 139 represents the Bog Hoe, used for the many rough purposes on the farm, digging up unsubdued places, grubbing bushes, brambles, &c.

Fig. 140 represents the Potato Digger, or hoe used for the purposes of hoeing in fields and digging potatoes.

Fig. 141 represents a Post Spoon or Scoop, made of iron or steel; a very useful implement in digging post holes. They are much used in setting Telegraph posts, when it is particularly convenient to scoop out the dirt from the bottom of deep holes.

FIG. 142. **Pick.** FIG. 143. **Pick and Mattock.** FIG. 144. **Mattock.**

Bush and Bramble Hook and Bill Hooks.

Fig. 145. Fig. 146. Fig. 147.

Fig. 145. The Bush or Bramble Hook has a long handle, and is a formidable implement for cutting long bushes, briars, &c.

Figs 146 and 147. Bill Hooks are used for cutting small bushes, pruning, &c., and are used with one hand.

Fig. 148. **Tuttle's Premium Manure Forks.**

These are celebrated Forks, and considering durability, the cheapest, whether used by the farmer himself, or by those employed; they have 4, 6, 8, or 10 tines, and are drawn from a solid bar of cast-steel, without a weld or lap, are so perfectly true, uniform, and of such temper, as to possess the most perfect elasticity.

The proprietors have a variety of kinds from other makers of high reputation, and for which lower prices are asked; also a strong kind for spading, digging vegetables, &c.

Fig. 149. **Garden Reel.**

Fig. 149 represents the Garden Reel and Line, a convenient article for laying out gardens, walks, &c.

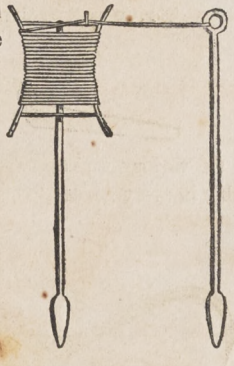


Fig. 150. **Hay Knife.**

Fig. 150, a Hay Knife, used for cutting down mows or stacks of hay.

FIG. 151. **Ox Balls.**

These are of brass or composition. They are screwed on the ends of the horns, and thus prevent cattle from injuring each other by hooking. They are also very ornamental.

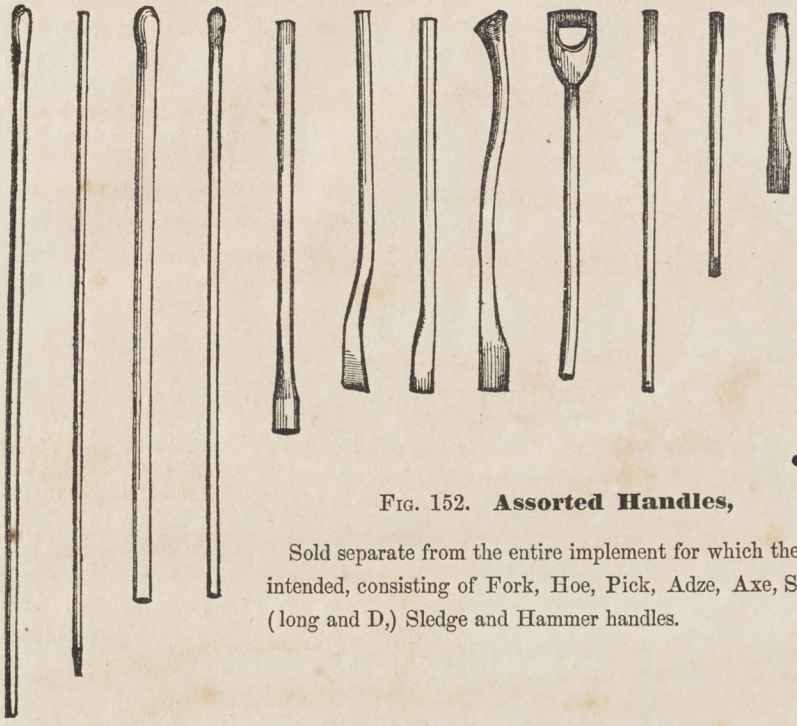
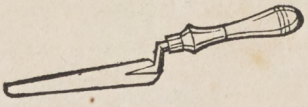


FIG. 152. **Assorted Handles,**

Sold separate from the entire implement for which they are intended, consisting of Fork, Hoe, Pick, Adze, Axe, Shovel (long and D,) Sledge and Hammer handles.

Transplanting and Weeding Trowels, (FIGS. 153 AND 154.)



Of various sizes and forms, made of cast steel, neatly finished and polished, and indispensible in every garden for transplanting and weeding purposes.

FIG. 155. **Grafting Chisel.**

This is probably the best form for a grafting chisel. The wide edge is used for splitting the stock after being cut off with a fine pruning saw.

The two pointed ends are used to open the same to receive the scions.

Garden Rakes,

Are of various kinds, sizes and forms, made of German steel, having from 8 to 14 teeth, drawn from a solid bar without a single weld or lap, light, strong, and neatly finished with handles: others are of iron, the teeth riveted into the heads, or of malleable iron, and are sold with or without handles; some with wood heads and iron teeth, sold only with handles; and some are made with a small hoe blade confined on one side of the head opposite the teeth.

FIG. 156. **Malleable Iron Garden Rake.**

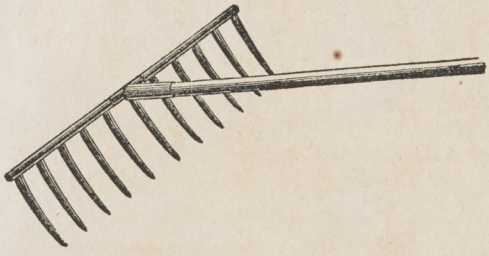


Fig. 156 represents the new malleable iron rake, superior to and fast superceding all others. It varies in size and number of teeth.

FIG. 157.

FIG. 157. **The Grass Lawn Rake.**

This rake has teeth sharpened on both edges like lancets, and is used for raking the grass in order to tear off the flower heads or buds of daisies, dandelions, and other plants in grass lawns.

FIG. 158. **Hoe Rake.**

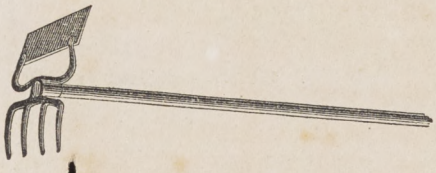


FIG. 158. Hoe Rake, having a steel hoe blade on one side and a malleable rake on the other.

FIG. 159. **Floral Rake.**

This is a six tooth Garden Rake, with a polished steel hoe blade upon the opposite side, with a handle fifteen inches in length; for weeding beds, &c. A pretty implement for ladies' use.

FIG. 160. **Fruit or Folding Ladder.**

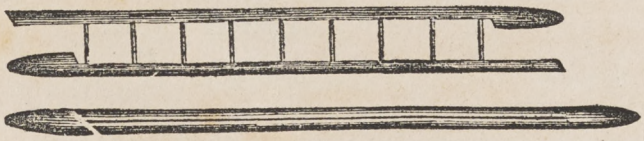


Fig. 160 represents the fruit or folding ladder, showing it both open and shut. It is a convenient article in orchards; it is made of various lengths; while shut may be set up among the branches of the fruit tree with facility, and then opened for use. It is strong, yet very light and portable.

FIGS. 161 AND 162. **Fruit Gatherers.**

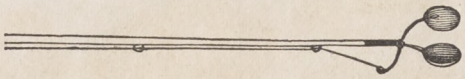


FIG. 161.

Fig. 196 represents two half-round cups of tin or other light metal, the size of a large apple, attached to iron arms and confined to a light pole, along the side of which a strong string passes, and is fastened to one arm. When this is drawn it causes the cup to enclose the fruit, which is carried with safety from the upper and outermost limbs to the ground.

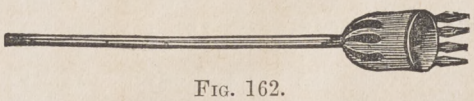
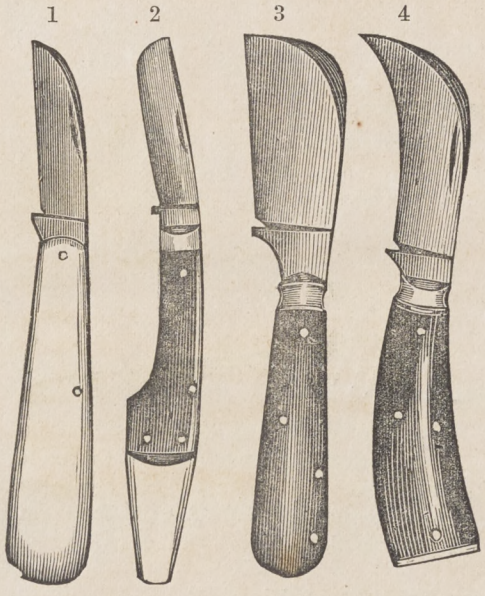


FIG. 162.

Fig. 162. This kind is made of tin or sheet iron, and placed on a handle; the stem of the fruit is passed between the teeth and forced from the limb, and drops into the cup below. There are various other kinds.

FIG. 163. **Pruning and Budding Knives.**



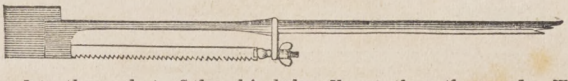
Nos. 1, 3 and 4 are of convenient form for pruning young trees, and are made strong for that purpose.

No. 2 represents the most approved form for budding. The edge of the blade is rounded at the point, and will shut up as a pocket knife. At the other end is a thin flat ivory lifter, with which the bark is loosened and raised, after being cut to receive the bud.

FIG. 164. **Grass Edging Knife,**

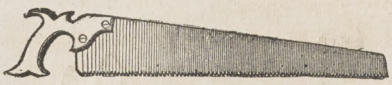
Fitted to a straight handle, and used for paring the edges of grass bordering walks, &c.; also for cutting the outlines of sods, which may then be readily raised by the spade.

FIG. 165. **Pruning Saw and Chisel.**



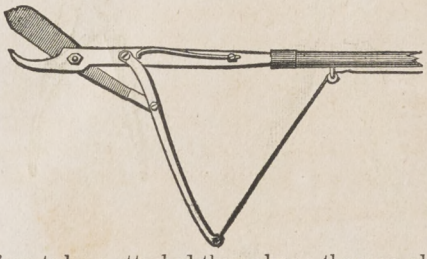
The blade of the saw is about 12 inches long, attached to the blade of the chisel at one end, and to the socket of the chisel handle at the other end. The chisel is 3 inches wide by 4 inches long, made thin and of the best cast steel. A wooden handle of convenient length is inserted in the socket handle, enabling a person to stand on the ground and trim his trees at convenience.

FIG. 166. **Pruning Saw.**



This form is most commonly used, and is of various sizes, with fine teeth; it is usually from 14 to 18 inches long.

FIG. 167. **Avarrancator.**



This article is attached to a pole and operates by means of a lever moved by a cord and pulley; its use is to enable a person standing on the ground, to prune trees, some of the branches of which could not, perhaps, be pruned by any other process. Branches of one inch in diameter may be easily cut off with this instrument. Avarrancators of small size are also very useful in cutting off from shade and fruit trees small branches to which insects have attached themselves; they are also used for gathering fruits, which when cut, will fall into a basket attached to the instrument when used for this purpose, and for cutting scions and buds, which it is always important to take from the top branches.

FIG. 168. **Ladies' Pruning Shears.**

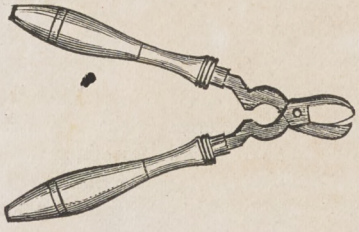


Fig. 168, with wood handles, are handsomely and lightly made; they are very useful in trimming shrubbery, &c., which is too large to be cut by the hand Shears.

Pruning Shears with Bows. FIG. 169.

These are adapted to pruning small twigs, cutting flowers, &c., and are a very useful and cheap article for ladies' use.

FIGS. 170 AND 171. **Garden or Hedge Shears.**

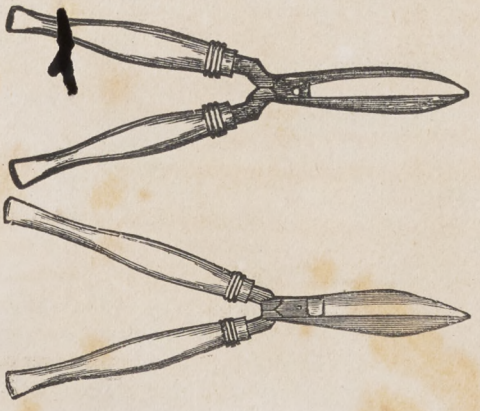


Fig. 170 represents this article without the pruning notch.

Fig. 171. These have the pruning notch, which is of considerable advantage when used for trimming hedges or shrubbery, as it enables the operator to cut much stronger twigs than would otherwise be cut by these shears.

FIG. 172. **Lopping or Branch Shears.**

FIG. 172. FIG. 173. FIG. 174.

FIG. 172 is very strongly made, with long wood handles, and is used for cutting large branches from trees, shrubbery, hedges, &c.

Sliding Pruning Shears.

Fig. 173. These differ from the Lopping or Branch Shears, in having a moveable center for the motion of one of the blades, by which means, instead of a crushing cut, they make a draw cut, leaving the section of the part attached to the tree or shrub smooth, as if cut with a knife; they are also much lighter and better finished than the Lopping Shears.

Fig. 174. These are small, light, and neatly finished, and very useful for trimming box, trees and bushes, as well as for other purposes.

FIG. 175. **Grass-Edging or Border Shears.**

Fig. 175. These are chiefly used for trimming the sides of box and grass edgings, and are constructed so that the operator may stand upright whilst using them. They have a wheel attached, which is generally considered an advantage.

FIG. 176. **Vine Scissors.**

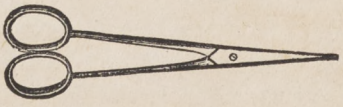


Fig. 176. Used for thinning out grapes when they have grown too closely on the bunch; also for removing superfluous leaves, twigs, &c., from vines of any kind.

FIG. 177. **Flower Gatherer.**

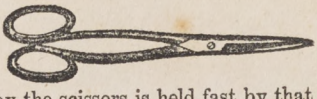


Fig. 177, a pair of Scissors combining tweezers or pincers; they are of great advantage in gathering roses and other flowers which have thorny stems, as the flower cut by the scissors is held fast by that part which acts as pincers till deposited in a receptacle.

FIGS. 178 AND 179. **Fox's Sliding Shears or Twig Cutter.**

Fig. 178 represents Fox's Sliding Shears, and Fig. 179 a French pattern which do not slide. Both are strong, light and convenient.

FIG. 180. **Garden Syringes,**

Of various sizes and of various materials, as brass, block tin, &c. For watering the leaves and branches of trees, shrubs, and greenhouse plants, or destroying noxious insects by using various liquids, they are found very useful, and are extensively employed in flower gardens and nurseries.

FIG. 181. **Sugar Cane Knife.**

Made of different sizes and patterns, strong and durable.

FIG. 182. **Reed's Patent Jack Screws,**—Used for raising buildings, or other heavy work, and consisting of two screws, one above the other, and moving in opposite directions, so that the gain is double at each revolution of the lever which turns them. They are made of various sizes,—1½, 1¾, 2 and 2½ inch, and of various lengths. Another size, 1¼ inch, is made quite light, and used principally as a wagon Jack.

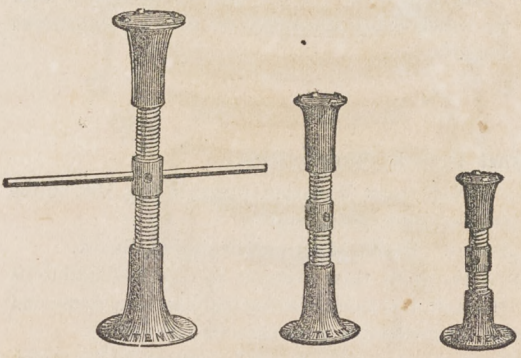


FIG. 183. **Hames.**

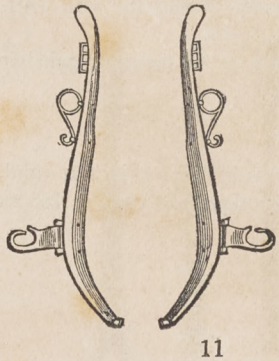


FIG. 184. **Truss Whiffletrees.**

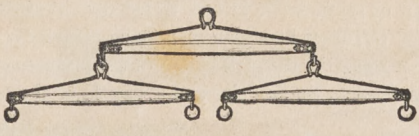
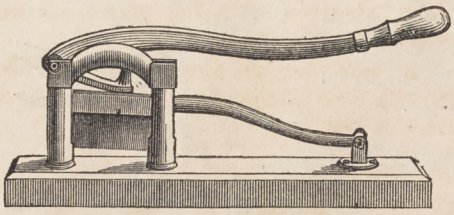


Fig. 183 represents a strong, light hame, for a draft horse.

Fig. 184 represents a pair of truss whiffletrees, for plowing, harrowing, &c., which may be used singly or together, possessing suitable strength combined with lightness.

FIG. 185. **Tobacco Cutter.**



Used for subdividing hands or layers of tobacco, for retailing purposes.

FIG. 186. **Well Wheel and Bucket.**

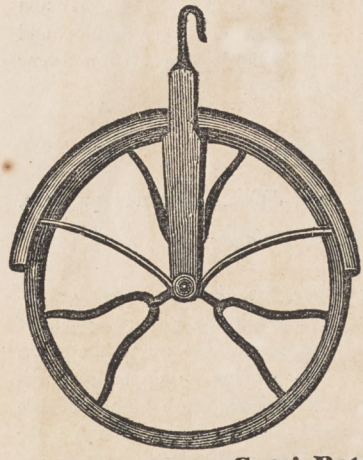


Fig. 187 represents a cheap fixture with a rope to raise water from wells, and is admirably adapted for raising and lowering light weights about stores and storehouses, as it works with much ease and despatch.

FIG. 187.

Fig. 187, Well Bucket, used in connection with the wheel, or any apparatus for drawing water from wells.

Coes' Patent Screw Wrenches.

The proprietors are venders of Coes' Patent Screw Wrenches, shown in Fig. 188, on the opposite page. They are of various sizes and finish, as follows,—

6, 8, 10, 12, 15, 18, and 21 inches, BRIGHT. 10, 12, 15, 18, and 21 inches, BLACK.

By the arrangement and proportions of the parts, these wrenches are acknowledged to be the most convenient, efficient, and the strongest now made, and having been long in use and fully proved, are favorably known among our mechanics, manufacturers and dealers.

The screw which moves the sliding jaw is expeditiously and easily operated by the thumb of the hand that grasps the handle, and the space between the jaws is adjusted to the size of the nut or screw to be turned, under any circumstances, more easily without than with assistance of the other hand, which may be necessarily otherwise employed.

By placing the screw that moves the traversing jaw by the side of the shank, or main bar of the wrench, the full size and strength of the bar is retained.

Witherby's Edge Tools,

Comprising Drawing Knives, Oval-backed Socket Framing Chisels, from ¼ inch up ward, Millwright Chisels, and Carpenter's Slicks, some of which are represented in Fig. 188 on the opposite page.

Socket Firmer Chisels are put up in boxes and assorted sizes, viz: ¼, ⅜, ½, ⅝, ¾, ⅞, 1, 1¼, and 1½, making nine in a set; and also 12 in the set by adding (*three larger sizes.*) They are made of the same quality of steel as the Framing Chisels.

These tools, being made of Norway and old Sable Iron, and Jessop's Extra Cast Steel, are light and handy, stiff and strong, which with their peculiar form, extra finish and uniform superior cutting qualities, gives them a wide celebrity.

FIG. 188.

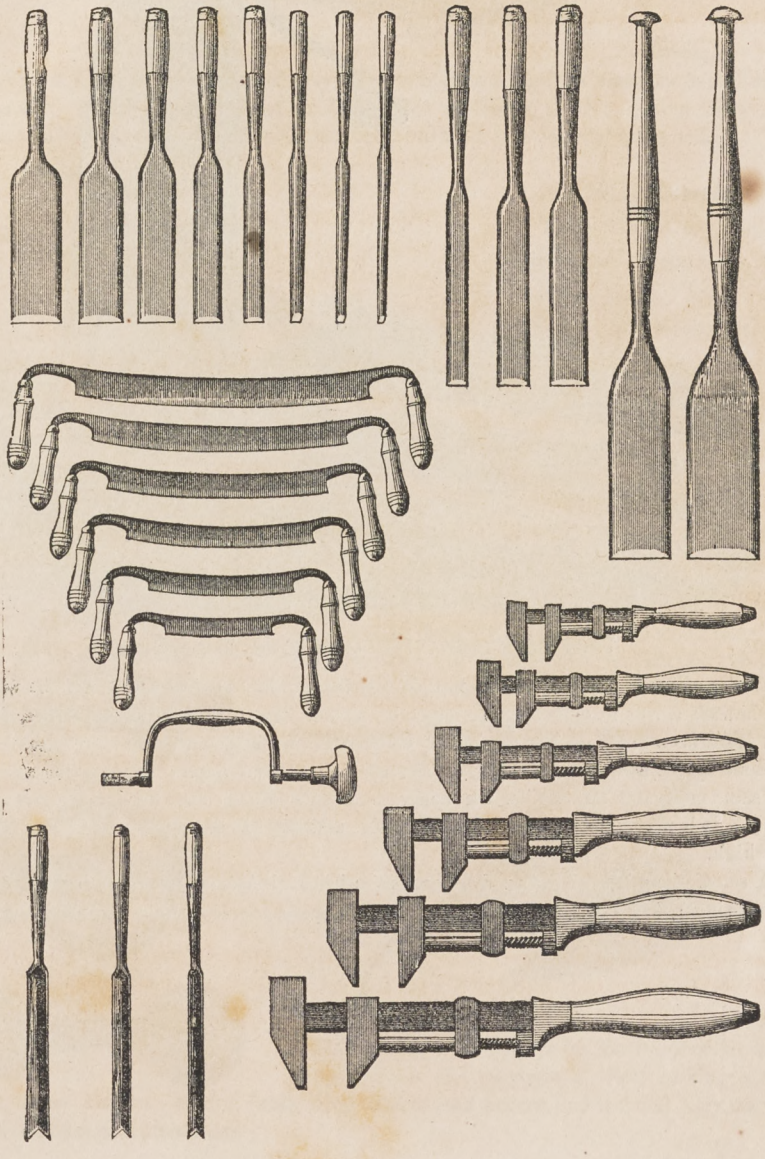
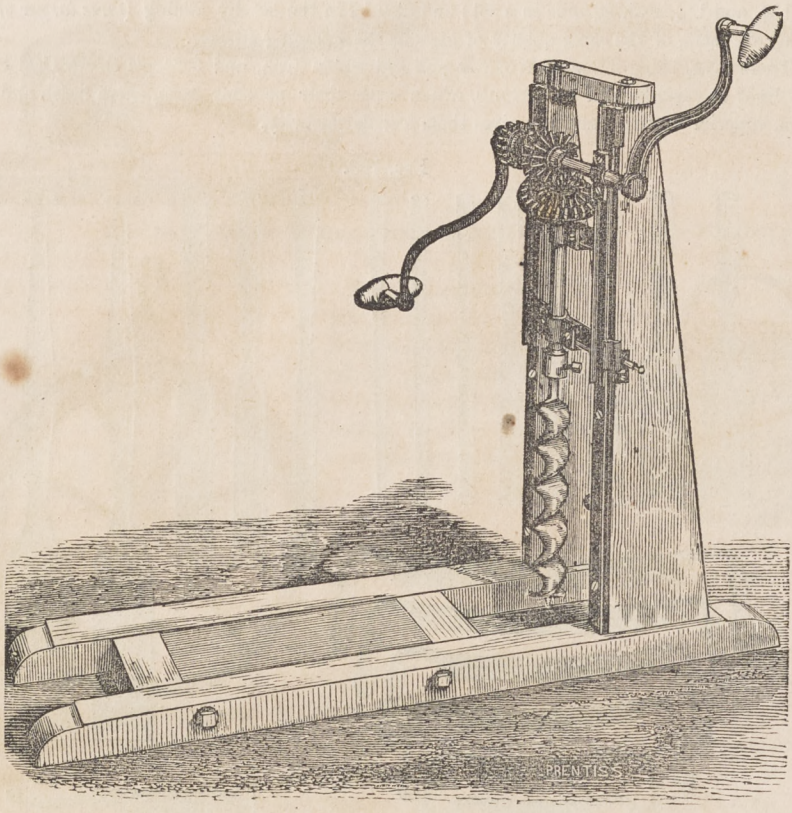


FIG. 189. **Improved Boring Machine.**

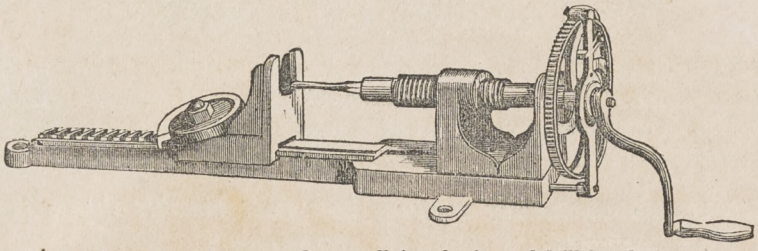


USED FOR FRAMING BUILDINGS, CARS, BRIDGES, &C.

This machine is attached to the top of the timber that is to be bored, and the workman sits himself across it, operating the auger by turning the two cranks, one with each hand, and performs a much greater amount of work, more perfectly and with more ease, than can be done by the laborious operation of turning the common Auger. By shipping a gear, and the same motion of the cranks, the auger is quickly drawn out, leaving the hole clear of chips. It is neatly finished, light and portable, and but two feet three inches long, and two feet high.

A set of three bits of SNELL & BROTHERS' celebrated Augers are fitted to each Machine, comprising 1, 1½ and 2 inches, 18 qrs. Extra augers, and other sizes, furnished to order.

FIG. 190. **Taft's Self-feeding Hand Drill.**



The above cut represents a new and very efficient horizontal drill for blacksmiths and shop use generally. Its advantages consist in its variable self-feeding motion, leaving the workman free to hold the article drilled with one hand, while the other operates the drill.

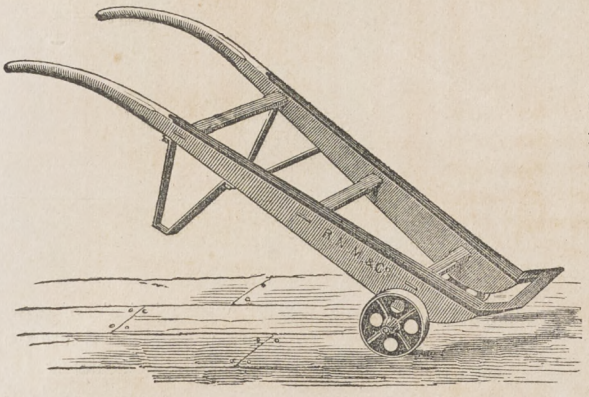
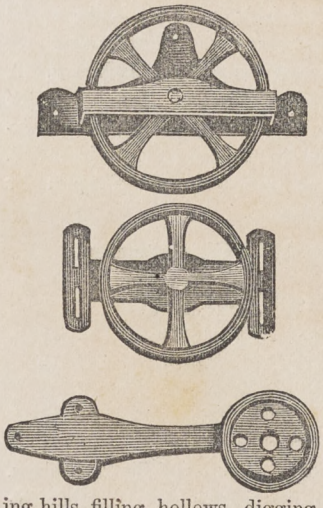


FIG. 191. **Trucks.**

These Trucks are used in Stores and Warehouses, for moving boxes, bales, &c. They are of various sizes.

FIG. 192. **Barn Door Rollers.**



These are of different sizes and prices, a great improvement from the old-fashioned mode of hanging doors of barns and out-buildings, and are quite cheap. There are sizes from 2 to 15 inches in diameter.

Cast-Iron Dirt Scraper or Ox Shovel.

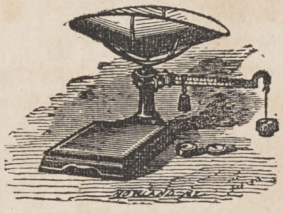
FIG. 193.

This scraper is found to be far superior to any thing else for the purposes of road making, leveling hills, filling hollows, digging wide, deep ditches and cellars, and is found very convenient on the farm and plantation.

FAIRBANKS & CO.'S SCALES,

Of all descriptions, furnished to order at short notice,—Railroad Track Scales, Hay Scales, Grain Scales, Dormant Warehouse Scales, Canal and Weighlock Scales capable of weighing five hundred tons; together with all the different varieties of Scales and Balances down to the finest kind of Druggist and Gold Scales, from the above celebrated manufacturers.

FIG. 194. **Union or Family Scale.**

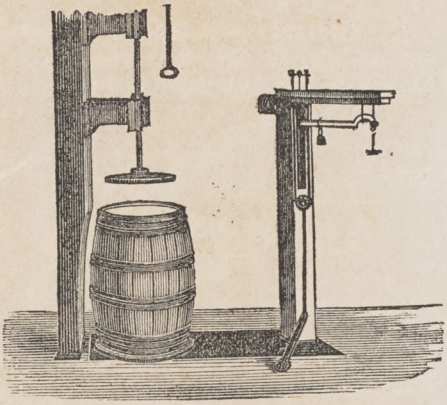


We invite special attention to the improved Union Scale, combining the advantages of a Counter and Platform Scale, and far superior in point of accuracy to any similar Scale ever offered to the public. We call it the Family Scale, because it is peculiarly adapted to household purposes. It weighs with the utmost accuracy from half an ounce to two hundred and forty pounds. The Scale is provided with a scoop or pan for weighing flour, sugar, or other house-stores in the kitchen, and also with a platform for heavier articles, as boxes, casks, &c. It is equally convenient for Grocers and Retailers.

FIG. 195. **Druggists' and Prescription Scales,**

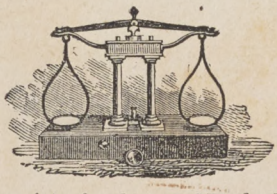
Of every variety, including Wholesale Druggists' Scales, on Iron, Brass, Marble, or Glass Standards, and with finely finished Beams of Iron, Brass, or Silver. Solid Silver and Brass Prescription Scales, with Rosewood, Mahogany and other cases.

FIG. 196. **Flour-Packing Scale.**



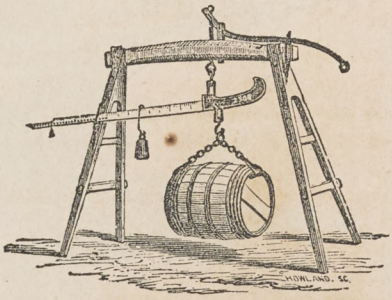
This is a recently invented Scale, of great value in Flouring Mills. It is fitted into the floor like a dormant scale, immediately beneath the machinery used in packing, and has a circular platform just large enough to fill the head of the barrel. On this the barrel is placed empty, and when filled is subjected to the pressure of the packing machinery. A lever, operated by the foot, then brings the apparatus of the scale into action, and the exact weight of the flour is at once indicated. The scale has also a smaller platform for packing half-barrels.

FIG. 197. **Gold Scales,**



In great variety, for the use of Banks, Brokers, Jewellers, &c., varying in price from one dollar to five hundred.

FIG. 198. **Weigh-Masters' Beams and Patent Balances;**



With Frames, Hogshead, Barrel, Cotton and Tobacco Hooks, Coffee and Hide Bottoms, Iron Cradles, &c.

FIG. 199. **Even Balances.**

No. 1. Weighing from half an ounce to eight pounds.

No. 1, with brass scale-beam. Weighing from one-fourth of an ounce to eight pounds.

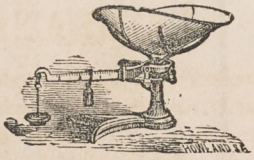
No. 2. Weighing from half an ounce to four pounds.

No. 3. Weighing from half an ounce to four pounds.

These four scales may be made to weigh two or three times as much, by using common weights.

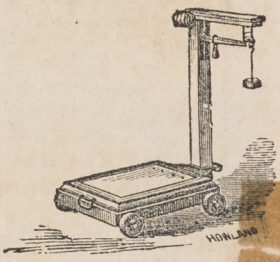
Larger and smaller sizes of these scales, will be furnished to order. They are extensively used by Grocers, Druggists, and Confectioners.

FIG. 200. **Counter Scale.**



Capacity, half ounce to thirty-six pounds. Economical for all Retail Stores and Shops, giving just weight, but requiring no excess for *down weight*.

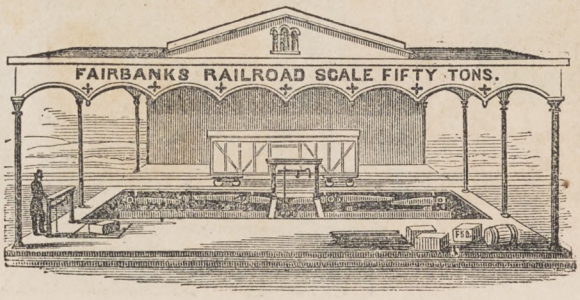
FIG. 201. **Portable Platform Scales, with and without Wheels.**



Convenient, accurate, and not liable to derangement. Various sizes of these Scales are made, adapted to every branch of business, and are in daily use in thousands of stores and manufactories in various parts of the world. Some of the principal sizes are as follows:

No. 7,	Platform	24 x 30 in.	Capacity	2,000 pounds.
No. 8,	"	24 x 30 "	"	1,600 "
No. 9,	"	21 x 29 "	"	1,400 "
No. 10,	"	19 x 28 "	"	1,200 "
No. 10½,	"	17 x 25 "	"	900 "
No. 11,	"	16 x 24 "	"	600 "
No. 11½,	"	15 x 21 "	"	400 "

FIG. 202. **Iron-Frame Railroad Track Scale.**



These are designed for weighing locomotives, loaded cars, and trains of cars. They may be of any desired length or capacity.

STATIONARY AND

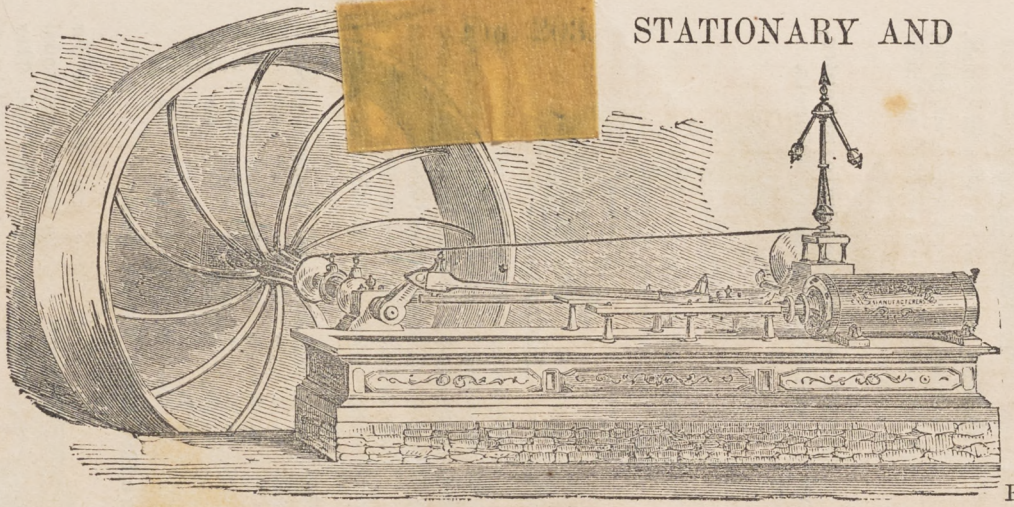
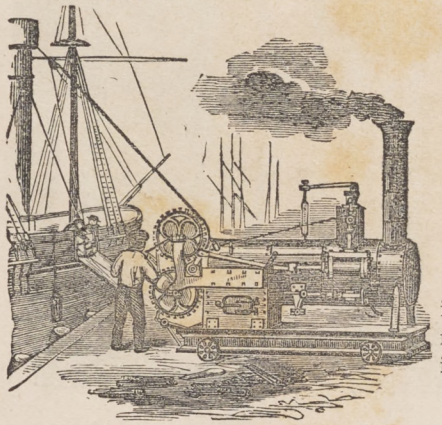


FIG. 204.

FIG. 205.

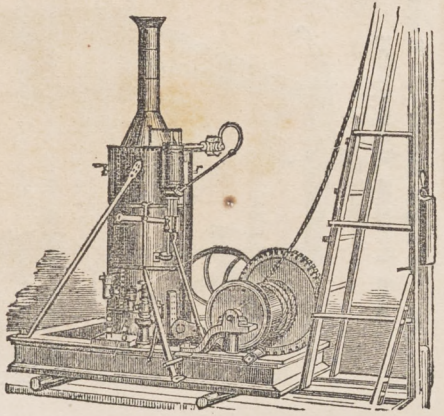
PORTABLE STEAM ENGINES.



PORTABLE STEAM ENGINES

CONSTANTLY ON HAND.

Designed particularly for Loading and Discharging Vessels, Driving Piles and Pumping. Also arranged with Governors, for running Saw Mills, Printing Presses, or machinery of any description.



HITTINGER, COO[illegible]TURERS.

Style of Engine.	Power.	Diam. of Boiler.	Length of Boiler.	Number of Flues.	Size of Flues	Bore of Cylind.	Stroke of Cylind.	Revolu per Minute.	Diameter of Fly-Wheel.	Face of Fly-Wheel.	Diamt'r of Drum.	Weight of Engine.	Will raise with single rope.
UPRIGHT,	4 horse	24 in.	5 f. 4 i.	25	2 n	4 1-2 i.	10 in.	160	24 in.	6 in.	9 in.	3000	1500 lbs.
"	5 "	30 in.	5 f. 6 i.	30	2 in.	5 1-4 i.	12 in.	150	30 in.	6 in.	10 in.	3700	1800 lbs.
"	7 "	32 in.	6 ft.	35	2 in.	6 in.	12 in.	150	32 in.	6 in.	12 in.	4500	2200 lbs.
Dble Upright	10 "	36 in.	6 ft.	50	2 in.	Two Cylin. 5 1-4 in. ea.	12 in.	150	30 in.	6 in.	2 Drums 10 in. ea.	5800	Each Drum 1800 lbs.
Horizontal,	4 "	24 in.	6 1-2 ft.	25	2 in.	4 1-2 i.	10 in.	160	24 in.	6 in.		2000	
"	5 "	30 in.	6 1-2 f.	30	2 in.	5 1-4 i.	12 in.	150	30 in.	6 in.	10 in.	4200	1800 lbs.
"	7 "	30 in.	7 1-2 f.	32	2 in	6 in.	12 in.	150	32 in.	6 in.	12 in.	4800	2200 lbs.
"	10 "	36 in.	9 ft.	50	2 in.	7 in.	14 in.	130	36 to 42 i.	6 to 10 i.	12 in.	6000	3400 lbs.
"	12 "	36 in.	10 ft.	50	2 in.	8 in.	14 in.	130	36 to 42 i.	6 to 12 i.	12 in.	6800	4200 lbs.
"	15 "	42 in	11 f. 6 i.	60	2 in.	9 in.	18 in.	100	42 to 48 i.	8 to 12 i.		9000	
"	20 "	42 in.	12 f. 6 i.	65	2 in.	10½ in.	20 in.	80	42 to 54 i.	8 to 12 i.		10360	
Dble Upright	14 "	42 in	9 ft.	60	2 in.	Two Cylin. 6 in ea.	12 in.	150	32 in.	6 in.	2 Drums 12 in. ea.	6800	Each Drum 2200 lbs.
Double Cylinder HORIZONTAL,	10 "	36 in.	9 ft.	50	2 in.	Two Cylin. 5 1-4 in. ea.	12 in.	150			2 Drums 10 in. ea.	6200	3400 lbs.
"	14 "	36 in.	10 f. 6 i.	55	2 in.	Two Cylin. 6 in. ea.	12 in.	150			2 Drums 12 in. ea.	7500	4200 lbs.
"	20 "	42 in.	12 f. 6 i	65	2 in.	Two Cylin. 7 in. ea.	14 in.	130	36 to 48 i.	8 to 12 i.		10500	
"	24 "	42 in.	12 f. 6 i.	75	2 in.	Two Cylin. 8 in. ea.	14 in.	130	36 to 48 i.	10 to 14 i.		11500	
"	30 "	42 in.	13 f. 6 i.	80	2 in.	Two Cylin. 9 in. ea.	18 in.	100	36 to 48 i.	10 to 18 i.		13000	
"	40 "	48 in.	12 f. 6 i.	100	2 in.	Two Cylin. 10 1-2 in. ea.	20 in.	80	36 to 48 i.	10 to 20 i.		15000	

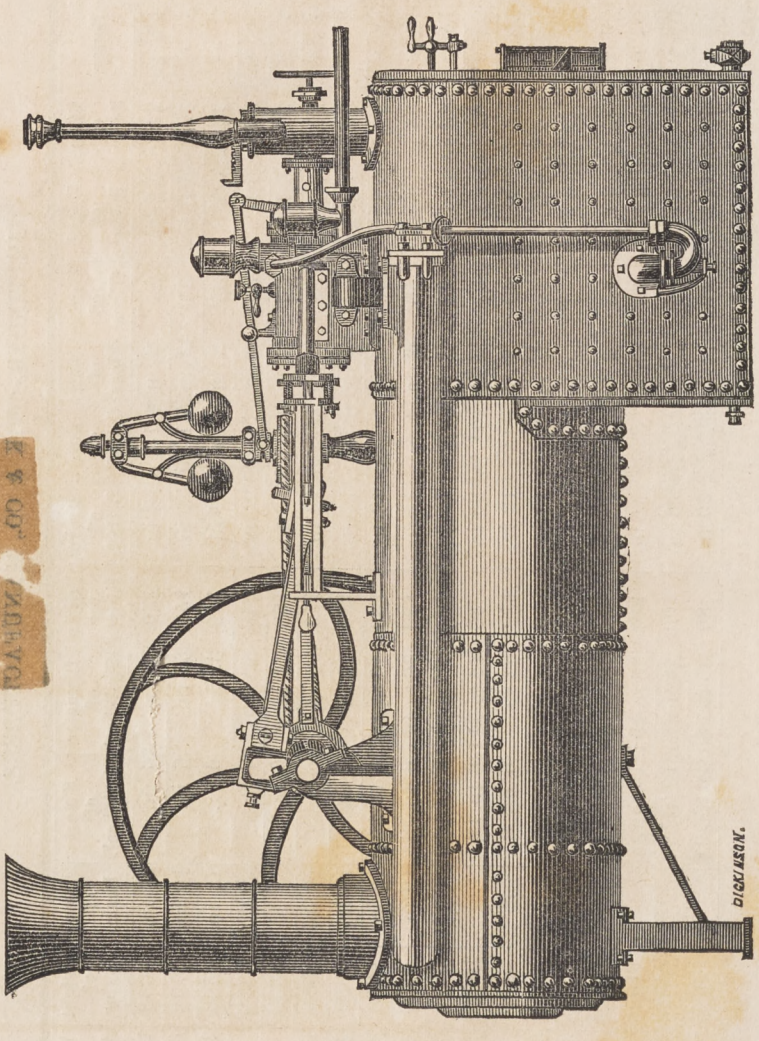


FIG. 206. **Hoadley & Co.'s Portable Steam Engine.**

TABLE OF PORTABLE STEAM ENGINES MANUFACTURED BY J. C. HOADLEY & CO.

No.	Power.	Cylinder.		BOILER.									Balance Wheel, or Driving Pulley.				Weight.
					Fire Box.			Tubes.			Fire Surface.	Grate Surface.					
	Horse Power.	Diam In.	St'ke. In.	Waist Diam. In.	L.	W.	H.	No.	Diam. In.	L'gth In.	Sq. Ft.	Sq. Ft.	Diameter. Inches.	Width of Face. In.	Weight. Lbs.	Speed. Rev. Per Min.	Pounds.
4	**3**	4	10	24	30	20	18	14	2¼	48	44	4 1-6	48	7	324	150	2,700
5	**4**	4½	10	24	33	20	18	16	2¼	48	50	4½	48	7	324	150	2,900
6	**5**	5	10	24	36	20	18	20	2¼	48	60	5	48	7	324	150	3,200
7	**6**	5½	10	26	30	22	28	27	2¼	48	90	4½	42	7	431	175	3,700
8	**7**	6	10	26	33	22	28	29	2¼	48	97	5	42	8	460	175	3,900
9	**8**	7	10	26	36	22	28	29	2¼	48	100	5½	42	9	500	175	4,500
10	**12**	8	12	29	39	25	33	34	2¼	60	139	6¾	42 and 48	12*	920	175	5,800
11	**15**	9	12	29	42	25	33	41	2¼	60	161	7 6-10	42 and 48	12*	1000	175	6,500
12	**20**	10	18	36	42	31	41	53	2¼	86	286	9	72 and 48	14*	1600	125	10,300
13	**25**	11	18	36	48	31	44	60	2¼	84	308	10 3-10	72 and 48	14*	1600	125	11,500
14	**30**	12	18	36	54	31	47	65	2¼	90	357	11 6-10	72	14*	2362	125	13,000
15	**35**	14	18	40	54	35	48	80	2¼	90	432	13	84	16*	2362	125	15,000
16	**40**	16	18	40	60	35	48	90	2¼	96	510	14 6-10	96	18*	2362	125	17,000

* Nos. 10, 11, 12, 13, 14, 15 and 16 have two Balance Wheels each.

These Engines are very compact and complete, having a feed-water Heater, Force Pump, Regulator, Belt-Pulley, turned on the face, Steam-Gauge; in short, every thing necessary to set them in operation, on the introduction of water and fuel (either wood or coal,) to the boiler, and applying the belt. No smoke-pipe is furnished with them, as it is bulky, liable to injury if left unboxed, and expensive to box up. Eight, ten or twelve-inch stove-pipe, of heavy English sheet iron, is all that is required, and that is to be had anywhere, of any length the location demands.

The Boilers are of best American iron, strong, well made, and supplied with fusible safety plug; and warranted to bear a cold water test pressure of 200 lbs. per square inch, and a constant working pressure of 120 lbs. They embrace the principles of the best modern locomotives, are well made, without finish for show, and are capable of working much above the power inserted in the table. Extra finish at extra prices.

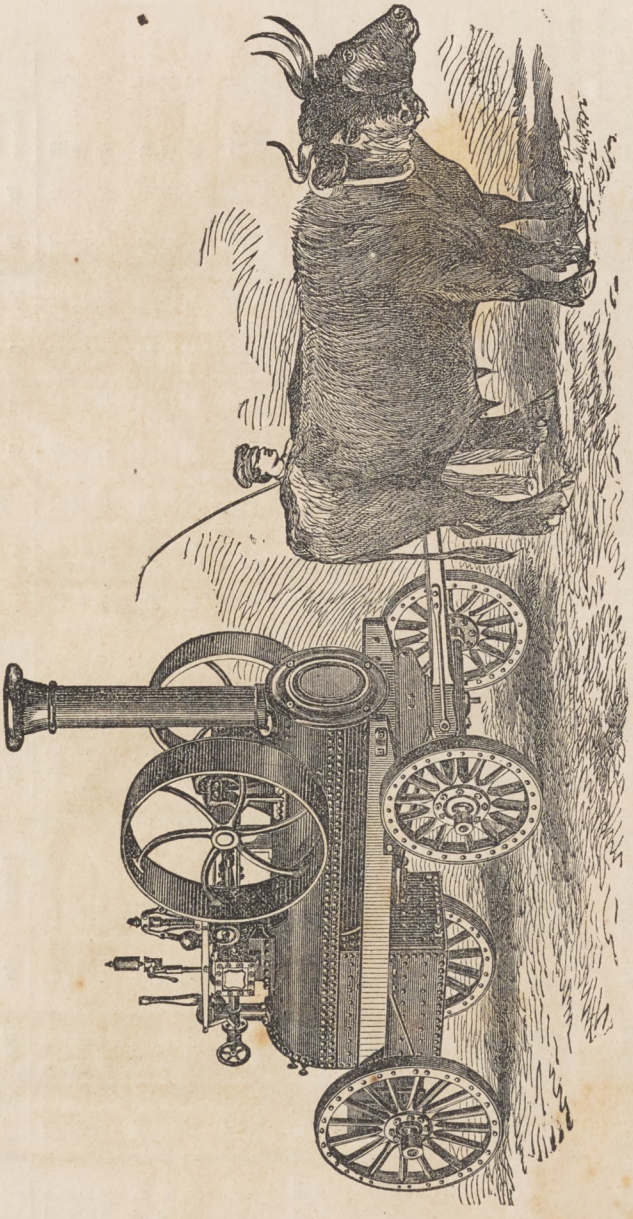
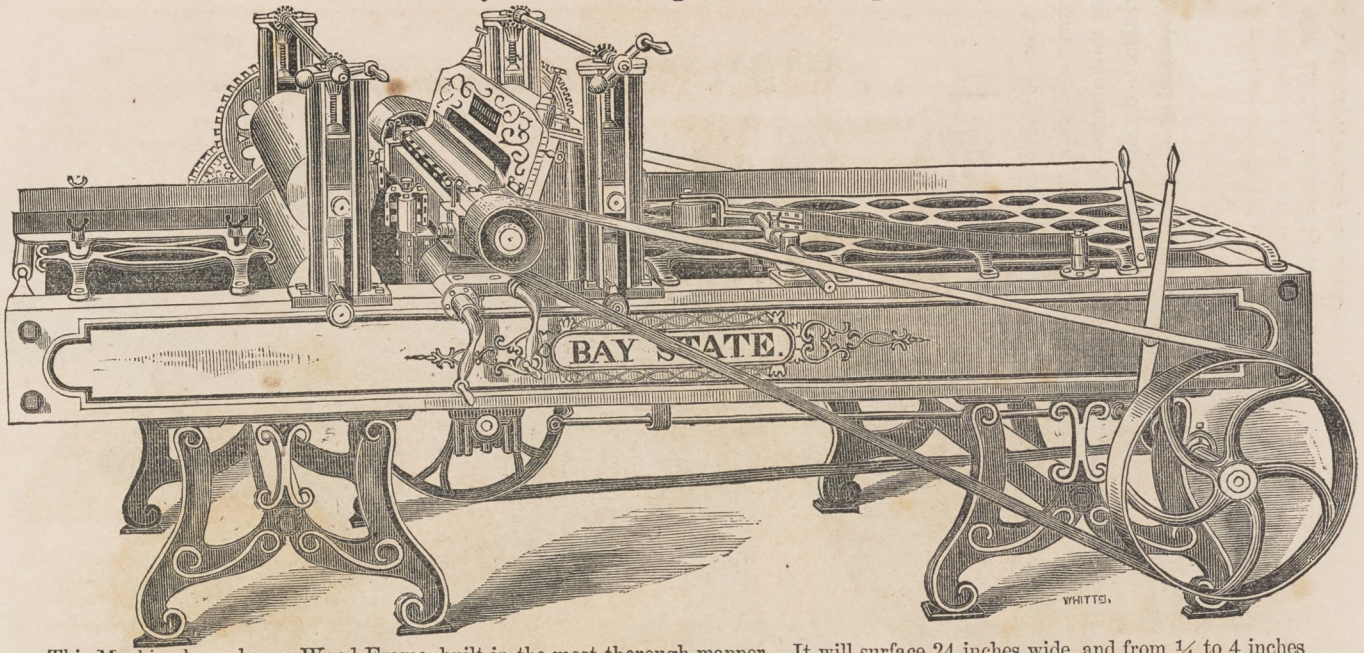


FIG. 207. **J. C. Hoadley's Portable Steam Engine, on Wheels.**

A good strong running gear, arranged so as to be easily attached and detached at pleasure, will be supplied if desired,—forming a useful wagon when separate.

☞ All Engines fired up and tried before they leave the shop, and warranted tight, safe, and in all respects ready for operation.

FIG. 208. **Bay State Planing and Matching Machine.**



This Machine has a heavy Wood Frame, built in the most thorough manner. It will surface 24 inches wide, and from ¼ to 4 inches thick, and match any width to twelve inches. Tue Planing Cylinder is solid Lowmoor iron, with steel bearings, 7½ inches long 1½ inch diameter; is driven by two 4 inch belts, and being made of the toughest metal is not liable to burst or break. It has 2 pair of 6 and 8 inch rolls, connected by Fitt's patent feed works, which admit of the most free and easy expansion of the rolls at all times.

The dead weight and pressure roll are combined to form a perfect security against the usual clip at the ends of each board; which with the convex mouth cap, to break the chip, makes perfectly smooth work both on straight and cross-grained lumber.

All the boxes of the cylinder, matcher and counter shafts are filled with oil cells in the castings, to supply oil continually to each bearing. The counter shaft has a tight and loose pulley, 12 inches diameter, 8 inch face, and should revolve 900 times per minute, which will give 36000 revolutions to the cutters.

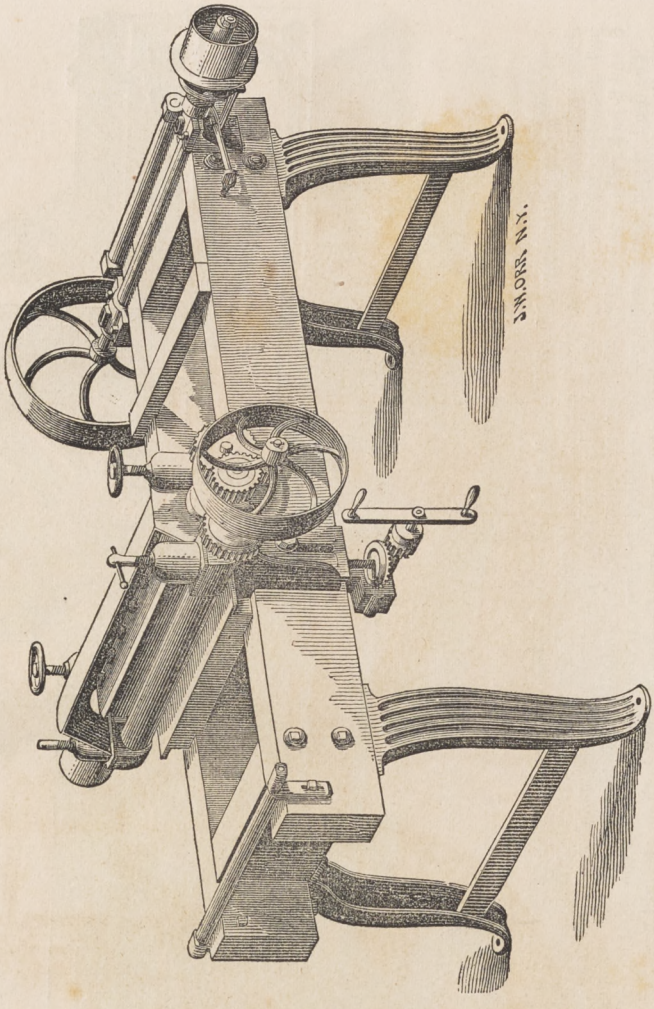
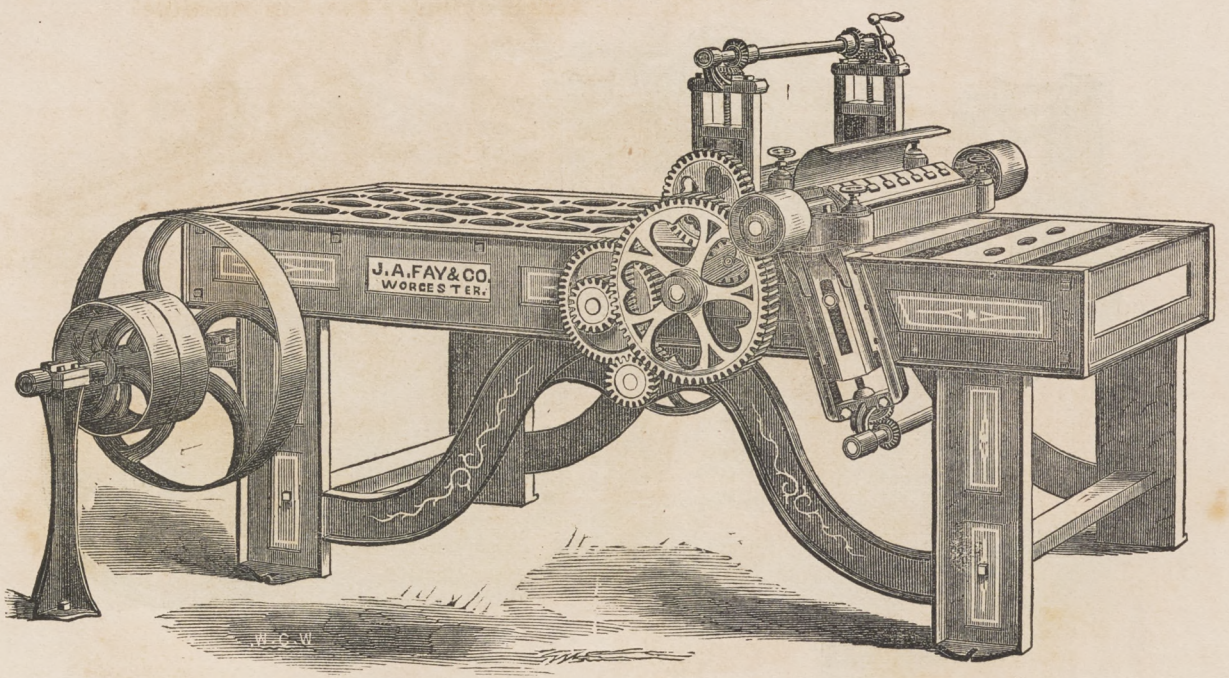


FIG. 209. **Small Cylinder Planing Machine.**

These Machines are designed for planing box boards, shelving, barrel heading, and a great variety of stock in sash and blind shops. They have two pressure feed rolls, and will plane any thickness less than 4 inches. Under the feed rollers are two other rollers to prevent friction, as the stuff passes over the bed. It is very simple, easily kept in order, and may be operated by any mechanic. The Cutter head requires a motion of 3500.

FIG. 210. **THE CLIPPER,**



A New Woodworth Planer, with improvements Patented Aug. 11, 1857.

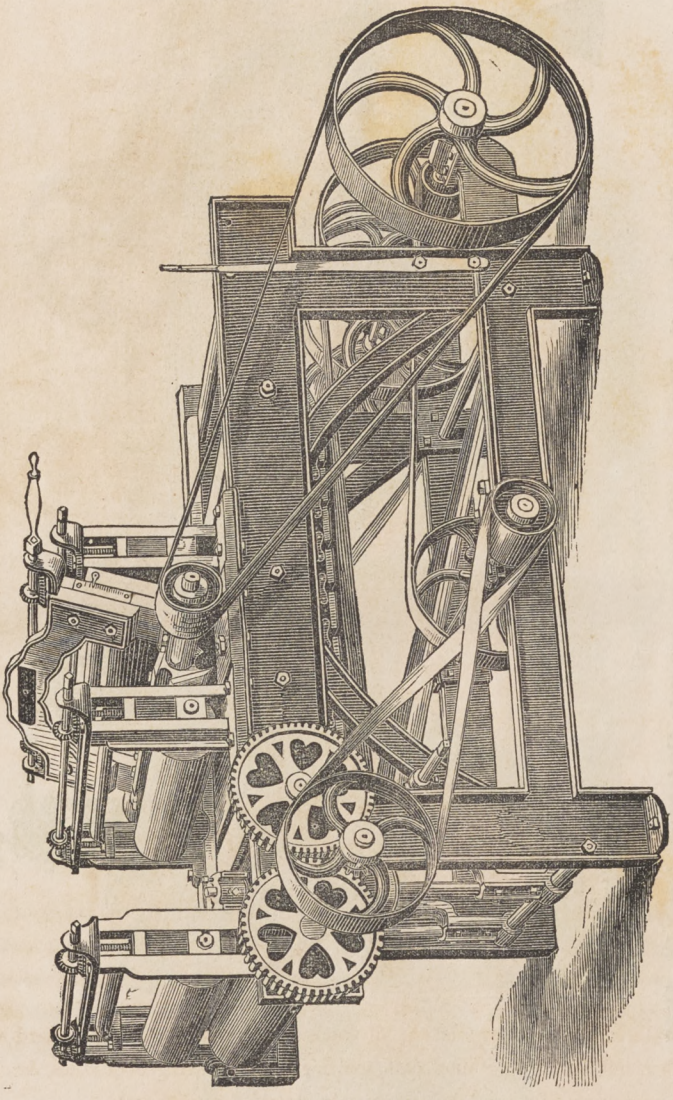


FIG. 211. **Improved Woodworth Planing Machine.**

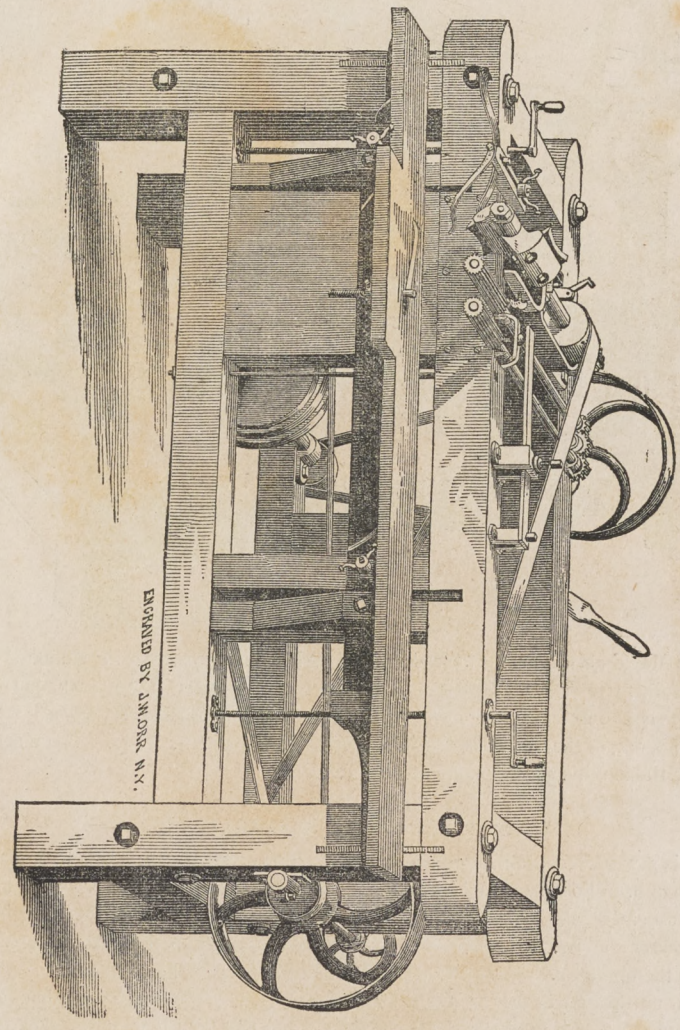
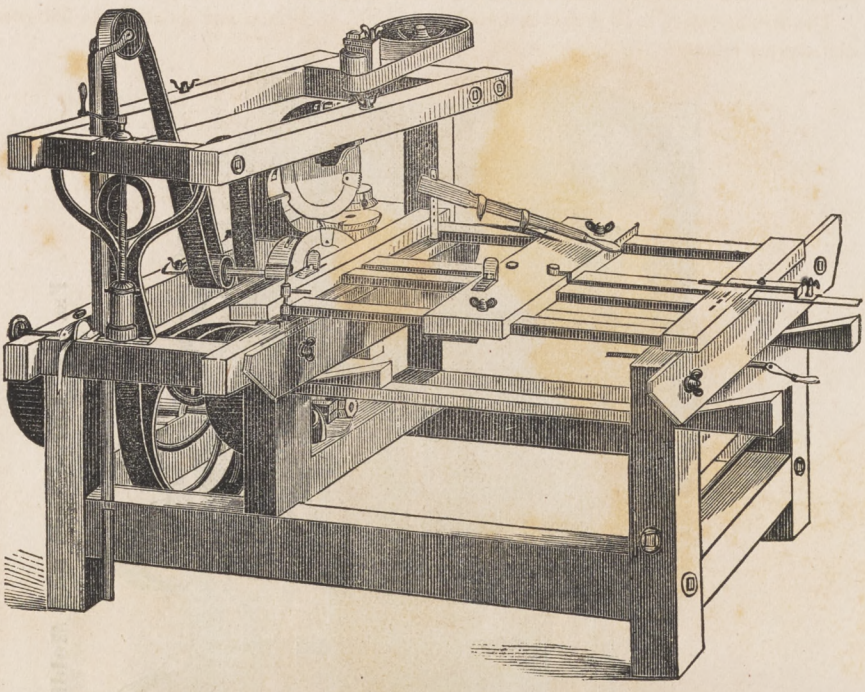


FIG. 212. **Large Sash and Molding Machine.**

This Machine is used for sticking all kinds of sash, both pine and hard wood; and for rabbeting, and for planing blind slats, jointing, and grooving, door stiles, &c.

It is unsurpassed by any other machine in use of the same cost.

FIG. 213. **Common Size Tenoning Machine.**



These Machines are manufactured and finished in the most superior manner, and are used for all ordinary tenoning. The late important improvements in the arrangement and hanging of the copes, by increasing the strength and attaching them independently of the swing, makes this one of the most desirable machines in a builder's shop. We also furnish machines without the cope work, for carriage work.

Power Mortising Machine. FIG. ~~213.~~ 214

This is a very strong and powerful machine, and executes the work with great certainty and dispatch, in both hard and soft wood. It is made principally of iron. The frame consists of an entire cast cylinder, except the base, to which the operating part is attached in such a manner as best to preserve its strength and stability, and secure the greatest convenience to the operator. It may be driven by steam, water or horse power.

When put in operation, the chisel receives a rapid perpendicular motion, and on being brought down to the work by the foot, makes one end of the mortise, when the foot is removed, and the chisel carried up by a balance-weight on the opposite end of the treadle, and reversed by a cam on the slide. It is then brought down again and the mortise is completed.

When required, we put on a boring shaft, which stands on a line with the chisel, and is operated by a treadle. This is not wanted, however, except for hard wood, when it is necessary to bore a hole the size of the chisel before making the mortise.

The machine may bekept in continued motion while doing any amount of work, as it does not require to be stopped in changing the stuff. For mortising doors and all kinds of work in soft wood, no boring is required for the mortise.

This machine is used to great advantage by door, sash and blind makers, coach and car builders, manufacturers of agricultural implements, etc.

The driving-pulley is 10 inches in diameter, and 3¼ inch face, and should make 300 revolutions per minute.

FIG. 214. **Power Mortising Machine.**

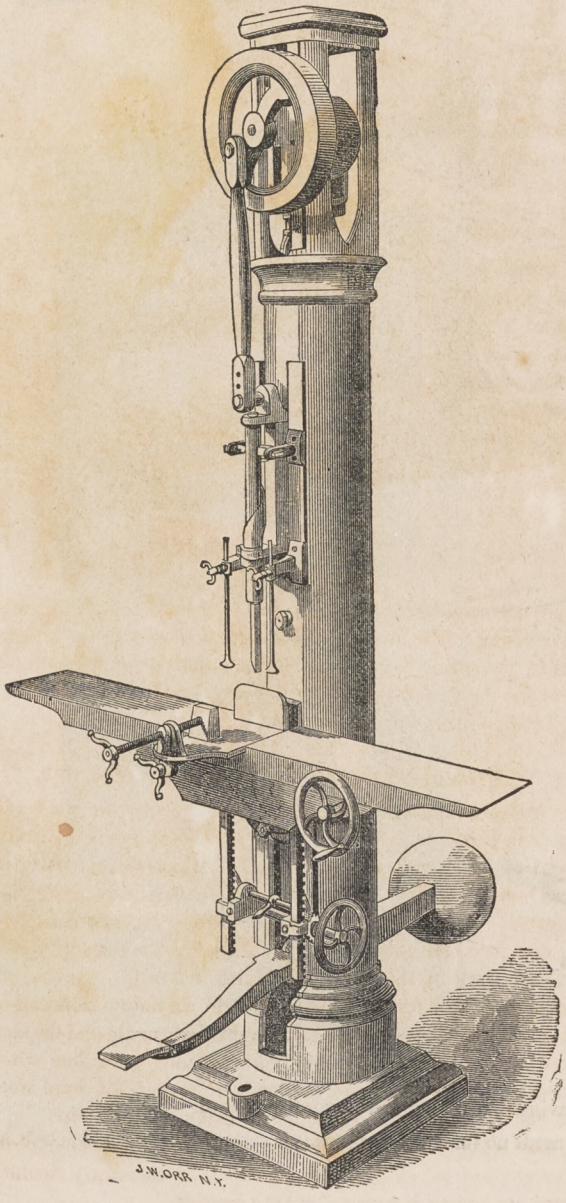
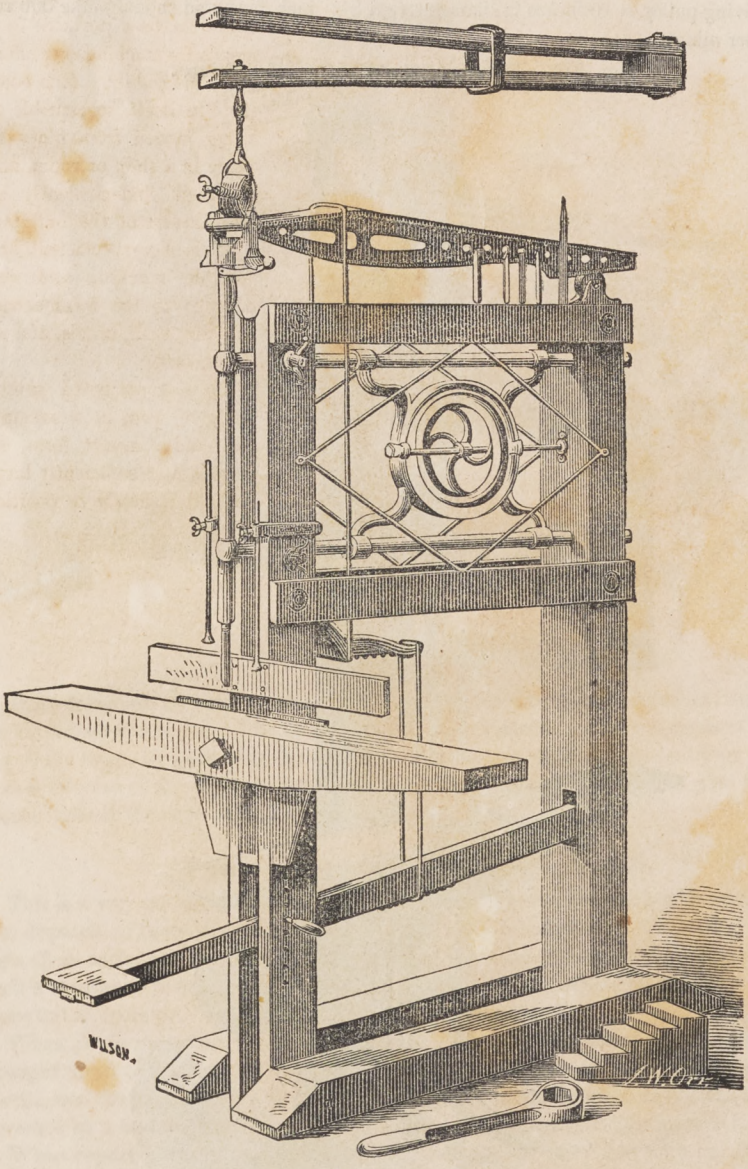
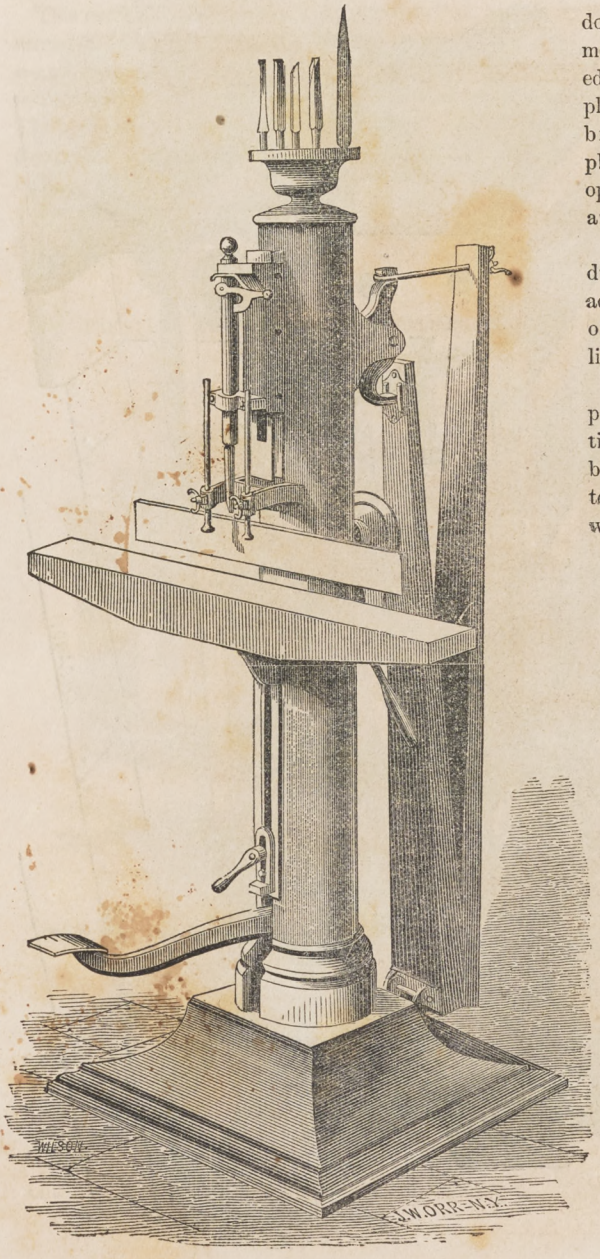


FIG. 215. **Large Foot Mortising Machine.**



This Machine having been long and favorably known and used throughout this and Foreign countries, needs no further description or special recommendation from us.

FIG. 216. **Portable Foot Mortising Machine.**



This Machine is without doubt the best portable foot mortising machine ever offered to the public. It is complete in itself, susceptible of being moved from place to place in a shop or room, and operated independently of any fixtures of the building.

It is a very efficient and durable machine, and well adapted to the manufacture of doors, sash, blinds, and all light work.

It is constructed principally of iron, in a substantial and compact form, its base being sufficiently large to hold it firmly in position when in operation.

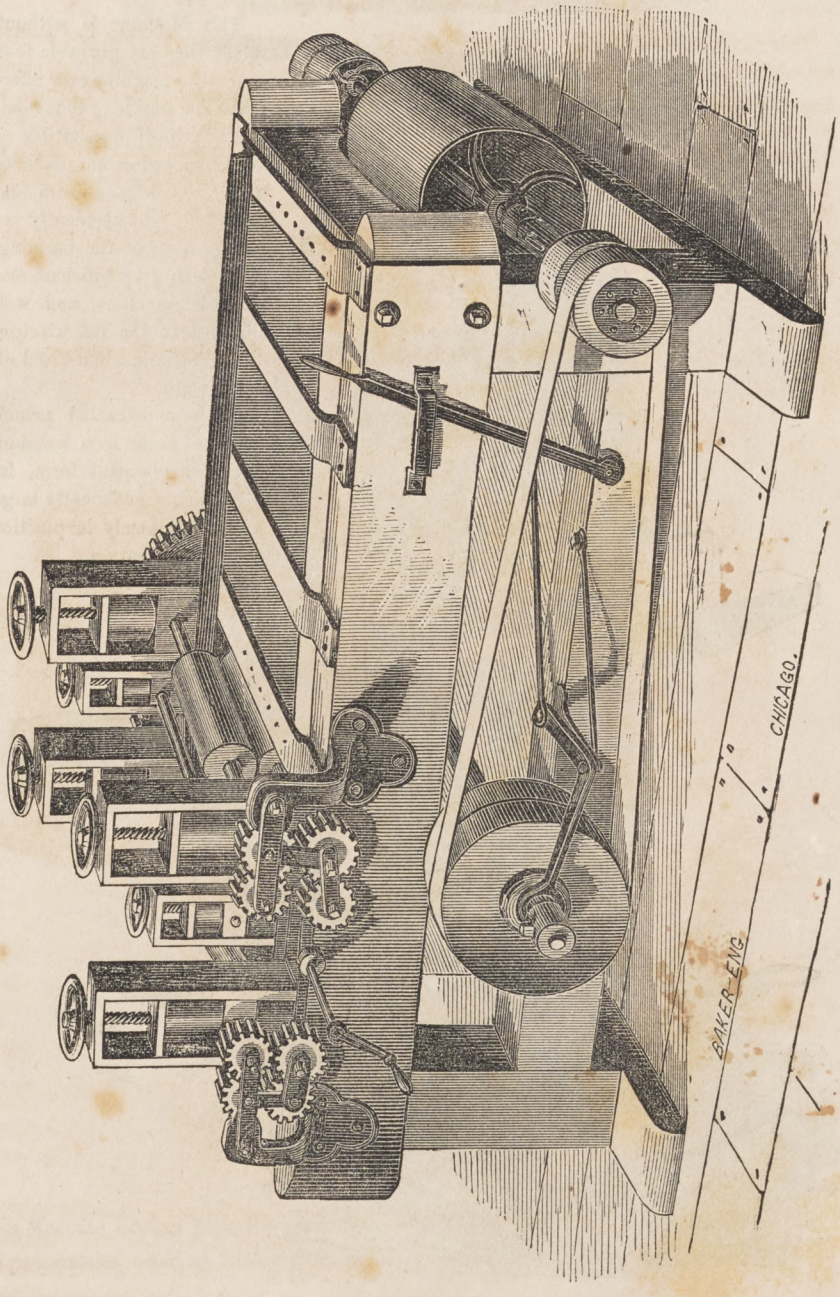


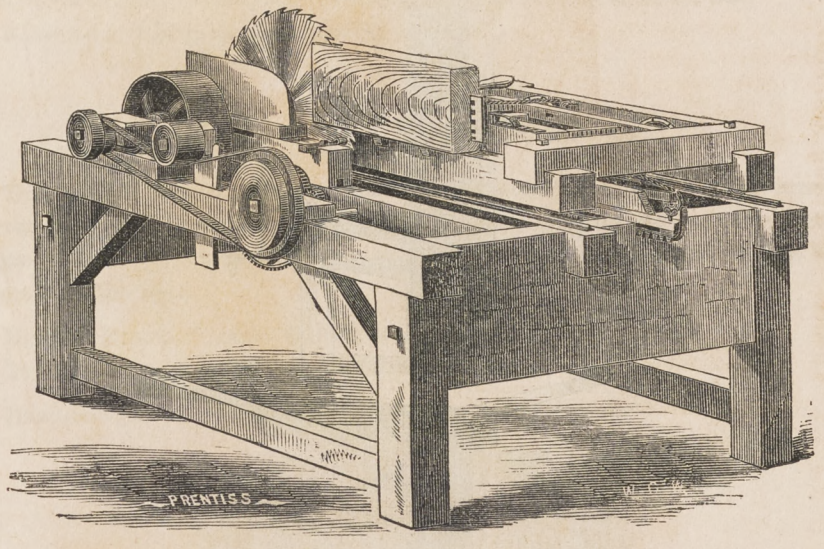
FIG. 217. **Yankee Matching Machine.**

Yankee Matching Machine. Fig. 217.

This machine is substantial in its construction, simple in its arrangements, and perfectly successful in its operations. It has two pairs of 4 inch feed rolls, connected by expansion gear wheels, also a pressure roll, all provided with Goodyear's Patent Rubber Springs, and will match lumber of any kind not exceeding 4 inches in thickness and 15 inches in width. The matcher head spindles, are made of the best double-refined English cast steel, it has two changes of gear, and is furnished with cutters for jointing and matching 1 inch and 1¼ inch stuff.

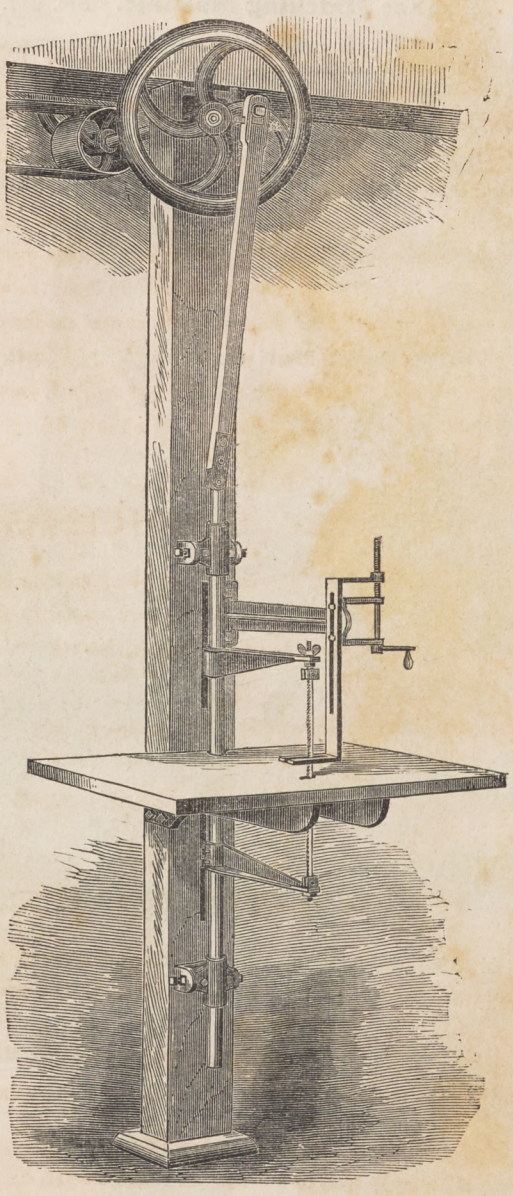
The machine has a counter-shaft, with tight and loose pulleys 12 inches diameter, which should make 850 revolutions.

Fig. 218. **Richardson, Meriam & Co.'s Shingle Machine.**



☞ The best Machine of the kind now in use.

FIG. 219. **Scroll or Jig Saw.**



This is a strong and well-arranged machine for common sawing, where the post is no objection. The shaft is made of gas pipe, and slips up and down in swivel boxes, lined with Babbitt metal. The arms that hold the saw are malleable iron, of sufficient strength for all ordinary purposes.

RUBBER BELTING.

Three and four ply, from 2 inches to 2 feet in width. Also, 2 ply, for light work.

Heavy 5 and 6 ply Belts made to order, for purposes where great strength is required (as a substitute for double leather), at an advance of twenty-five and fifty per cent. on 4 ply prices.

Special orders for Belts of any thickness and width can be executed, but we keep no Belts on hand heavier than "four ply," or more than 20 inches in width. We have constantly on hand a very large stock, and can usually fill orders on the day they are received.

In running Belts, protect them as much as possible from contact with animal oil, as it will have a tendency to decompose the rubber, and hence seriously injure the Belt.

A full roll of Belting measures from 230 to 250 feet.

STEAM PACKING.

This article is now considered by Engineers and Machinists as indispensable wherever steam joints are to be made, as no substance has so much elasticity which stands so high a degree of heat. The Packing is made to be used in, and is warranted to stand, at least 300 degrees of Fahrenheit.

Mixed or Fibrous Packing, in sheets of all thicknesses.

Gum Packing, with cloth insertion, in sheets of all thicknesses.

These are about one yard wide, and in rolls of any length required.

RUBBER HOSE.

The 2 Ply Hose, or Conducting Hose, is not calculated to stand much pressure.

The 3 Ply Hose (used for Hydrants, etc.) is made to stand a pressure of 75 lbs. to the square inch.

The 4 Ply Hose (used for Locomotives and for Leading Hose for Fire Engines and other purposes) is made to withstand a pressure of 150 lbs. to the square inch.

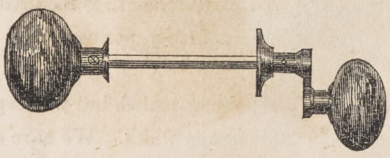
Conducting Hose, 2 Ply,—½ inch to 10 inches internal diameter.

Hydrant Hose, 3 Ply,—½ inch to 3 inches internal diameter.

Large Sizes made to order, on Metal Rings, or Flat Galvanized Iron wound Spirally.

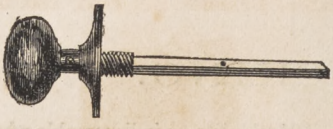
BUILDERS' HARDWARE GOODS.

FIG. 220. **Crank Door Knobs,**
FOR STORE DOORS.



No. 1, Porcelain, with Porcelain Roses,
No. 1, " " Plated "
No. 1, Mineral, " Japanned "

FIG. 221. **Bell Pulls.**



No. 1, Pearl White, with Plated Mountings,
No. 1, " " " White Metal "
No. 1, " " " Porcelain "
No. 1, Mineral, " Japanned "

FIGS. 222-3. **Key Plates.**

No. 4.

No. 5.

No. 4, Silver Plated
No. 4, White Metal,
No. 4, Japanned,
No. 5, Silver Plated,
No. 5, White Metal,
No. 5, Japanned,
Porcelain Key Plates, No. 1, Large,
" " " No. 2, Medium,
" " " No. 3, "
" " " No. 4, Small.

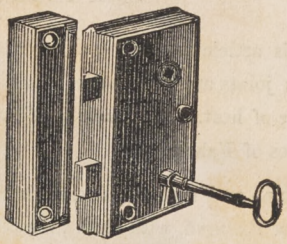
All styles of Locks are packed with plain flat Escutcheons. If other styles of Escutcheons are wanted, the order should be so designated.

FIGS. 224-5. **Key Escutcheons.**

No. 2, Silver Plated Oval Drop,
No. 2, White Metal " "
No. 2, Japanned " "
No. 3, Porcelain, Poppy shape Drop.

Door Locks.

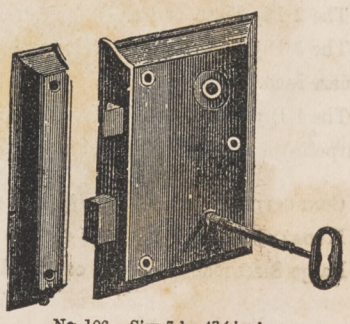
FIG. 226. HEAVY UPRIGHT RIM STORE DOOR LOCK AND LATCH.



No. 100. Size 7 by 3¾ inches.

Heavy Brass Bolts, two Brass Keys, five Tumblers, 400 changes.

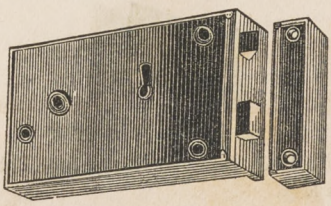
FIG. 227. HEAVY UPRIGHT RIM FRONT DOOR LOCK AND LATCH.



No. 106. Size 7 by 4¾ inches.

Brass Bolts and Key.

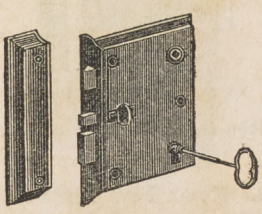
FIG. 228. HORIZONTAL RIM LOCK & LATCH.



No. 102. Size 8 inches.

Brass Bolts and Brass Key, One Tumbler.

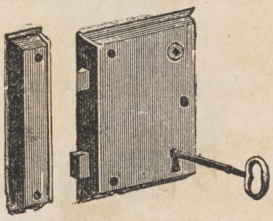
FIG. 229. UPRIGHT RIM COTTAGE LOCK AND LATCH.



No. 115. Size 5 by 4¾ inches.

With Brass Bolts and Keys, and Centre Slide Bolt for State Room or Hotel doors.

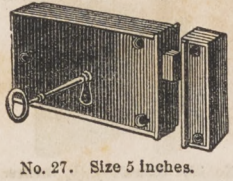
FIG. 230. PARKER'S UPRIGHT RIM LOCK AND LATCH.



No. 125. Size 5 by 3⅝ inches.

With Iron Bolts and Brass Key.

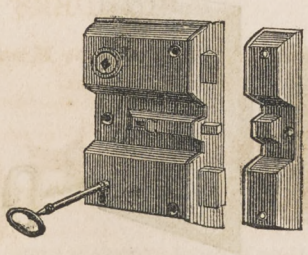
FIG. 231. HORIZONTAL RIM DEAD LOCK.



No. 27. Size 5 inches.

With Iron Bolts and Bronze Keys.

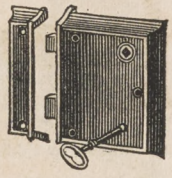
FIG. 232. UPRIGHT RIM COTTAGE LOCK AND LATCH.



No. 112. Size 5¼ by 4 inches.

Three Tumblers, with Brass Bolts and Keys and Centre Slide Bolt.

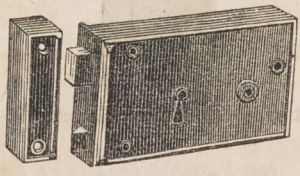
FIG. 233. UPRIGHT RIM LOCK AND LATCH.



No. 140. Size 4⅝ by 3¼ inches.

With Bronze Bolts and Keys, in cases of six dozen, with Knobs.

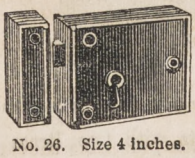
FIG. 234. HORIZONTAL RIM LEVER LOCK AND LATCH.



No. 145. Size 6 by 3½ inches.

With Brass Bolts and Keys.

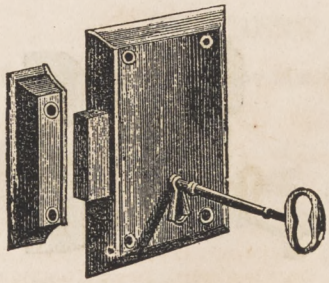
FIG. 235. HORIZONTAL RIM DEAD LOCK.



No. 26. Size 4 inches.

With Iron Bolt and Bronze Key.

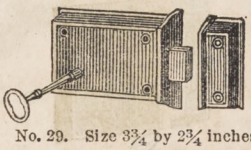
FIG. 236. HEAVY UPRIGHT STORE DOOR RIM LOCK.



No. 240. Size 7 by 4 inches.

Two Heavy Brass Keys, extra heavy Iron Bolt, three Tumblers.

FIG. 237. HORIZONTAL RIM DEAD LOCK.



No. 29. Size 3¾ by 2¾ inches.

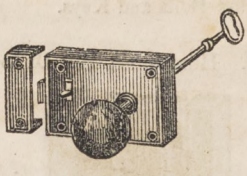
With Brass Bolts and Brass Keys, three Tumblers.

FIG. 238. HORIZONTAL RIM LOCK.

No. 21. Size 3 by 2¾ inches.

Right or left hand, Iron Bolt and Key.

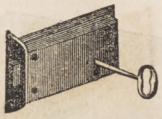
FIG. 239. CITY RIM NIGHT LATCH.



No. 19. Size 4 by 3 inches.

Brass Bolts with two Brass Keys, with Knob complete.

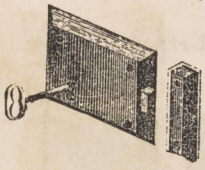
FIG. 240. HORIZONTAL RIM LOCK.



No. 30. Size 3½ by 2½ inches.

With Brass Bolt and Key, or Iron Bolt and Brass Key.

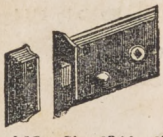
FIG. 241. HORIZONTAL RIM LOCK.



No, 23. Size 3 by 3½ inches.

With Iron Bolt, Bronze Key.

FIG. 242. EXTRA FINE RIM STOP LATCH.



Nos. 16 and 17. Size 3¾ by 2½ inches.

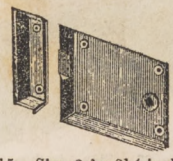
With fine Iron or Brass Bolt, and Brass Stop Bolt.

FIG. 243. RIM LATCH.

No. 18. Size 2½ by 3½ inches.

With Iron Bolt and Brass Slide Bolt.

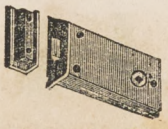
FIG. 244. RIM LATCH.



No. 15. Size 3 by 3½ inches.

With Iron Bolt.

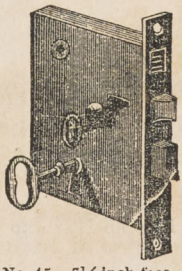
FIG. 245. RIM LATCH.



No. 13. Size 2½ by 3¾ inches.

With Iron Bolt.

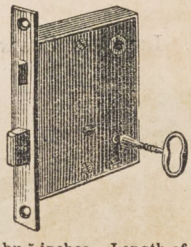
FIG. 246. HEAVY THREE TUMBLER NIGHT SAFE MORTISE LOCK.



No. 45. 7½ inch face.

Brass Bolts and Keys, Brass Striker, two Night Keys, 100 changes.

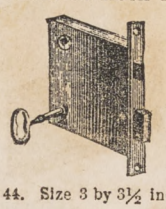
FIG. 247. HEAVY MORTISE FRONT DOOR LOCK AND LATCH.



No. 60. Size 4 by 5 inches, Length of face 7¼ inches.

With Brass Key and Striker, Brass Bolts, three Tumblers, 100 changes.

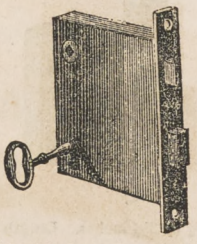
FIG. 248. MORTISE LOCK AND LATCH.



No. 44. Size 3 by 3½ inches.

Iron Bolts, Brass Face and Brass Key.

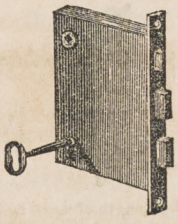
FIG. 249. HEAVY BRASS FACE, BRASS BOLT, MORTISE FRONT DOOR LOCK AND LATCH.



No. 40. Size 5 by 4 inches. Length of face 7½ inches.

With Brass Key and Brass Striker.

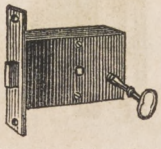
FIG. 250. HOTEL MORTISE LOCK AND LATCH.



No. 65. Size 5 by 3½ inches. Length of face 7 inches.

Three Brass Bolts, Brass Face, Brass Key for Chamber Doors.

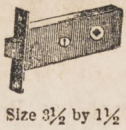
FIG. 251. MORTISE DEAD LOCK.



No. 34. Size 2½ by 3½ inches.

Brass Bolt, Brass Key, three Tumblers, 100 changes.

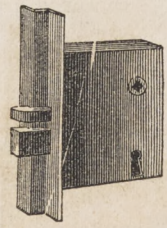
FIG. 252. EXTRA FINE MORTISE LATCH.



No. 4. Size 3½ by 1½ inches.

Brass Face, Bolt and Striker.

FIG. 253. RABBETED DOOR LOCK AND LATCH.



No. 52. Size 4¾ by 3½ inches. Length of face 6½ in.

Brass Face, Brass Bolts and Brass Key, extra fine finish.

FIG. 254. FRENCH WINDOW LATCH.

No. 6. Length of face 5 inches.

Brass Face, Brass Bolt and Brass Striker.

FIG. 255. NEW PATTERN AXLE PULLEYS.

1¾ inch Solid Axle, covered Bearings,
2 " " " " "

FIG. 256. ROUND EDGE MORTISE LATCH.

No. 3. Size 3¼ by 1½ inches.

Iron Face, Iron Bolt and Striker.

FIG. 257. BRACED WARDROBE HOOKS.

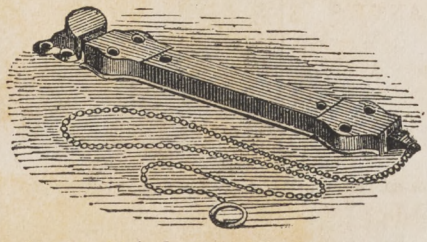
NOS. 4, 5, and 6.

FIG. 258-9. BRACED HAT AND COAT HOOKS.

No. 7.

No. 8.

FIG. 260. IMPROVED CHAIN BOLTS.



No. 1, 10 inch. No. 2, 8 inch.
No. 3, 6 inch. No. 4, 4 inch.

TREADWELL & CO.'S

CATALOGUE OF HARDWARE.

Northeast corner of Battery and California Streets,

SAN FRANCISCO.

Referring to the annexed List, we have every confidence in asking purchasers to call upon us at the above address, where it will afford us pleasure to sell them, for cash or approved credit, from one of the most complete and extensive Stocks ever presented to their notice.

All orders in writing will receive equal attention to personal visits.

Soliciting your business specially,

We are, very Respectfully,

Your Obedient Servants,

TREADWELL & CO.

ANVILS.
- Wright's Patent Swaged,
- Wright's old Patent,
- Wilkinson's,
- Armitage's Mousehole,
- American Hardware Co.

AXLES.

AXES.
- Collins & Co.'s Light, Medium & Heavy,
- Hunt's Light, Medium and Heavy,
- H. Collins',
- D. Simmons'.

ADZES.
- Collins & Co.'s,
- Hunt's.

AGRICULTURAL IMPLEMENTS.
- Cast Steel Plows,
- Cast Iron Plows,
- Canal Barrows,
- Corn Shellers,

AGRICULTURAL IMPLEMENTS.
- Churns,
- Ox Yokes,
- Ox Bows,
- Plows and Plow Castings,
- Hay-Rakes,
- Cast Steel Hay-Forks,
- C. S. & G. S. Manure Forks,
- Straw Cutters,
- Corn, Grass, and Brier Scythes,
- Grain Cradles, complete,
- Scythe Snaths.
- " Stones,
- Grindstones,
- Friction Rollers,
- Store Trucks.

BELLOWS.
- 26, 28, 30, 32, 34, 36, 38, 40 in.

BALANCES, PATENT.
- 150 to 1500 lbs.

BRUSHES.
Horse, in variety.
COFFEE-MILLS.
Parker's, 1, 2, 3,
Wilson's,
Box do. Iron Hopper,
" " Britannia Hopper.
CHAINS.
Str't and Twisted Close Link Jap'd Coil, 3-16, ¼, 5-16, ⅜, ½, 9-16, 5-8.
Bright Log,
5-16, ⅜, 7-16, ½, 5-8.
Bright Fifth Chains.
" " " with stretcher,
" Lock Chains,
" Stretcher "
" Tongue "
" Back Bands, (single and double,)
" Trace Chains, 6½ & 7 ft., Twisted and Straight, from 10 to 16 Link,
Halter Chains, both English and German,
Iron and Brass Jack Chains, all numbers.
CUTLERY.
From the celebrated Manufactories of "George Wostenholm & Son," "Rodgers & Sons," and others of "Sheffield Makers," in Pocket, Bowie and Sporting Knives, Table Knives, Carvers and Steels, Razors, Scissors, Shears, &c. &c, in great variety.
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Brass & Iron Bar.
CROWBARS.
Steel Point.
FILES AND RASPS.
Stubbs, Spear & Jackson, Wilson, Hawksworth, Ellison & Co., and other Makers of celebrity, of every description made.
FIRE DOGS.
Japanned and Bronzed.
FRY-PANS.
Short handled, No. 0, 1, 2, 3, 4, 5, 6, 7,
Long " assorted.
GRINDSTONES.
30 to 300 lbs.
Fixtures, 1, 2, 3.
" with Flange.

GUNS.
Double and single Barrel,
Rifles of every description,
Revolvers, in Colt's and other improved Makers.
Derringer's and English Pocket and Holster Pistols,
Gun Materials,
English, French and American Percussion Caps, &c.
Sporting articles in general.
HOLLOW WARE.
Tinned Sance-pans, No. 1, 2, 3, 4, 5, 6, 7, 8, 10.
Enameled, Plain and Lip'd, No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
Tin'd Round and Oval Pots, from 1 to 10 Gallons.
Mortars and Pestles.
Glue Pots.
Enam'd Maslin Kettles, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16.
Light Hollow Ware.
Heavy " "
In Pots, Ovens, Spiders, Skillets, Wash Kettles, &c.
HANDLES.
Best Hickory Axe, Adze, Pick, Sledge.
HATCHETS.
Phillips, Hunt, Collins, Simmons.
Shingling, 1, 2, 3.
Claw, 1, 2, 3.
Bench, 1, 2, 3, 4, 5, 6.
Lath, 1 and 2.
HAMMERS AND SLEDGES.
Attwood's Best Stone and Blacksmith.
Collin's C. S., and Double Ironfaced.
Nail, Riveting and Shoe, of the most approved make.
HINGES.
Best Weighty Strap.
" " T.
American Strap, T & H Hinges.
Wrought, Cast, Loose and Fast Joint Door Buts, English and American.
American Table & Back Flap Hinges.
Parliament and Skew Hinges.
Brass Hinges of all descriptions.

HOES.

Tuttle & Co.'s half Bright, 1, 2, 3, 4.
" all Bright, 1, 2, 3, 4.
Clement, Hawkes & Co's. Patent Hoes, 00, 0, 1, 2, 3.
All Bright Elephant Hoe, 000, 00, 0, 1, 2, 3, 4.
Grub Hoes.
" Round Eye.
" Mattocks.

IRONS.

Sad Irons, New England.
" " Locomotive.
" " Box, with Extra Heaters.

LOCKS.

Rim.
Mortice.
Dead.
Plate.
Pad.
Chest.
Cupboard.
Till.
Trunk.
In all the various grades, from the Lowest Priced goods to the Finest manufactured.

LEVELS.

Pocket, Iron and Brass Face.
Plain, Spirit.
" with Side Lights.
Plumbs and Levels.
Of every description, in Mahogany, Rosewood and Fine Satin Wood.

LEAD.

Bar, Sheet, Pipe.

NAILS.

Cut, 4d, 5d, 6d, 8d, 10d, 12d, 20d, 40d, 60d.
Cut 3d. } Taunton Tack Co.
Fine 3d. }
Wrought. 6d, 8d, 10d, 12d.
Horse, "G," 4, 5, 6, 7, 8, 9, 10 lb.
Cut Spikes, 4, 5, 5½, 6, 6½.
Wrought Spikes.
Clout Nails, English and American.
Finishing Nails.

PLANES.

Greenfield Tool Co.
Baldwin's.
Smooth Single and Double C. S. Irons.
Jack, " " "
Fore, " " "
Jointer, " " "
Plow Planes, complete, and every style of Moulding Plane manufactured.
Match Planes, all sizes.

PICKS.

Collins & Co.
California and Railroad Picks, made expressly for our Trade, of the most approved shapes, and Warranted Good. Assorted Sizes.

ROPE.

Manilla, Jute, Cotton.
Twine, Linen, Cotton.
Shoe Thread.

SHOVELS AND SPADES.

O. Ames & Son's L. H. R. P. Shovels.
" " S. P. "
" D. H. R. P. "
" " S. P. "
" L. H. Spades.
" D. H. "
Treadwell & Co's Antrim Welded Strap, Warranted Cast Steel, L. H. R. P. Shovels.
" D. H. R. P. Shovels.
" L. H. S. P. "
" D. H. S. P. "
" L. H. Spades.
" D. H. "
Also Carter's C. S. Shovels and Spades.
Iron Long and D. Handle Shovels and Spades.
Scoop Shovels, half Bright, all Bright, Double Strapped and Extra Braced.

SCALES. See Cuts in this Catalogue.

Warranted Platforms, of Fairbanks' and other makes, weighing from 240 lbs. to 5000 lbs.
Hay Scales, 2, 3, 4, 5, 6 and 10 Tons.
Tea, Counter and Grocers' Scales.
Hatch's Scales.

SCREWS.

New England Screw Co.'s Gimblet Screws, Iron and Brass, all sizes and numbers.

STEEL.

Sanderson's or Naylor's
Cast, Flat,
Square, Octagon.

SAWS.

Spear & Jackson's C. S. Hand, Panel and Rip, 26, 28, 30 in.

Spear & Jackson's Extra Polished Plate, Zebra Wood Handles, Raised Steel Rivets, Etched on the Plate, 26, 28, 30 in.

Wilson, Hawksworth, Ellison & Co.'s Steel Hand, Panel and Rip, with Beech Handle, Polished Edges, Fancy Rivets, 26, 28, 30 in.

Rotherham's Cast Steel Saw, Beech Handle, Polished Edges, Full Size Plate, 26 in.—an excellent Saw.

Spear & Jackson's, and other Compass Saws, 10, 12, 14, 16 in.

Wilson, Hawksworth, Ellison & Co.'s, & Spear & Jackson's, Blued and Iron Back Saws, 8, 10, 12, 14, 16, 18 in.

Butcher's Bow Saws, 12, 14, 16, 18, 20, 22 in.

Billet Webb's.

" " complete.

Turning Webbs, 10 to 36 in.

Fret Saws, assorted.

Treadwell & Co.'s Warranted Cross-Cut Saws, 5, 5½, 6, 6½, 7, 7½, 8 ft.

Rowland's Anchor Brand Mill and Mulay Saws, to every Scantling and Guage.

Hoe & Co.'s S. C. do. do.

" " Circular do. from 6 in. to 60 in.

Spear & Jackson's do.

Treadwell & Co.'s do.

C. S. Pit Saws, 6½ and 7 ft.

SHOT.

Drop, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

Buck, 1, 2, 3, B, B, B, 0, 00, 000.

BALLS,—Pistol and Musket.

TACKS AND BRADS.

Taunton Tack Co.—Field's,—Hobart's.

Cut Tacks, 2½, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24 oz. Both Full and ½ weight.

Do. in boxes of 100 papers each, and from 3 to 12 oz.

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Cut Brads, ½, ¾, 1, 1¼, 1½, 1¾, 2 in.

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Augers.

Auger Bits.

Hollow Augers.

Braces and Bits.

Boring Machines.

Mortice "

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Firmer Chisels and Gouges.

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Rosewood, Ebony and Boxwood Gauges.

" " " Sliding Bevils.

Iron and Cast Steel Squares.

Diamond Try "

Ivory and Boxwood Rules.

VICES.

Solid Box.

Cotter Key'd.

Bright.

Also, Hand and Bench Vices.

WRENCHES.

English Wrought Iron, 8, 10 11, 12, in.

Taft's Bright, American Iron, 6, 8, 10, 12, 15 in.

Taft's Black, American Iron, 6, 8, 10, 12, 15.

Coes' Bright, American Iron, 6, 8, 10, 12, 15 in.

Also Malleable Buggy, Iron.

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Nos. 1 to 24.

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The great popularity of the Antrim Patent Shovels, and the great call for the *Welded Straps*, has induced some manufacturers to polish their steel-edge iron shovels, and brand them *Cast Steel*, because having an iron blade, the strap of course being a part of the blade, resembles the Antrim, and many persons are thereby deceived, and instead of getting a cast steel shovel as they suppose, they get an iron shovel with about two ounces of steel in the edge. This cannot be denied.

The Antrim Shovel is the strongest, most durable, the lightest, and best shovel ever made, and the *only Cast Steel Welded Strap*, and is as great an improvement on a shovel, as the present style of hoe is an improvement on the old-fashioned riveted shank hoe, now out of use.